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Civil Works

FY 2011
Budget
Justification
Information

GREAT LAKES AND OHIO RIVER DIVISION

1 February 2010

GREAT LAKES AND OHIO RIVER DIVISION
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JUSTIFICATION OF ESTIMATE

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

1 February 2010

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	ARRA Allocation as of 31 Dec 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Des Plaines River, IL & WI (Phase II) Chicago District	6,500,000	3,970,000	362,000	478,000	482,000	421,000	500,000	287,000

The Des Plaines River (DPR) Basin originates in southwest Wisconsin and flows south into northeastern Illinois and has a drainage area of approximately 700 square miles. The DPR has a long history of flooding and land use change, which has caused significant economic and ecological losses throughout the basin. Economically, this study will provide benefits to a significant number of residential and commercial structures with an estimated market value of over $100,000,000 in 73 municipalities. Record flooding in 1986 and 1987 caused an estimated $100,00,000 in damage to 10,000 dwellings and 263 business and industrial sites and severely impacted the entire transportation network including air, rail and surface roads in this densely populated region Northwest of Chicago. There were seven fatalities during the 1986 and 1987 events. Floods severely impacted communication, transit, drinking water, emergency services and hospitals. Flooding in the Des Plaines River watershed can directly affect an estimated 1,733,000 people along with an estimated 4,810,000 people regionally impacted by the flooded transportation networks. Flood and Coastal Storm Damage Reduction measures would reduce the risk to life and health, and further prevent severe disruption to the air and land transportation networks including the world's busiest airport, O'Hare. Population density, residential and commercial development, and flat topography still result in substantial risks to life and safety despite lower flood depths and velocities. Recent flood events in May 2004 and August 2007 caused significant flood damages resulting in disaster declarations for the area. The August 2007 flood event caused an estimated $40,000,000 in damages. September 2008 flooding also resulted in $87,000,000 in damages, resulting in Presidential disaster declarations

Ecologically, this project could restore thousands of acres of the watershed. Agriculture, urban and suburban development within the watershed has created a landscape regime and drainage network that no longer provides the means for ecological and hydrological integrity to be sustained. This same change is the primary cause of increased flooding as well. Tens of thousands of natural landscape and wetland acres have been drained, altered or destroyed within the Upper Des Plaines watershed in Wisconsin and Illinois. To date, the study has evaluated 713 sites (115,373 acres) for implementing restoration measures that would improve riverine, wetland, riparian and watershed functions. The result of this analysis has illustrated that there are potentially 135 highly beneficial restoration projects (78,860 acres) that could be implemented that would have incidental flood damage reduction benefits. The next phase of this study will further refine this set to identify the most beneficial and cost effective alternative.

The Illinois Department of Natural Resources, Lake County Storm Water Management Commission, County of Kenosha, Cook County Highway Department and Metropolitan Water Reclamation District of Greater Chicago and Kenosha County, Wisconsin are sponsors for the project. The Feasibility Cost Sharing Agreement was executed in February 2002.

The preliminary estimated cost of the feasibility phase is $13,000,000 which is to be shared on a 50/50 percent basis by Federal and non-Federal interests. A summary of the cost sharing is as follows:

Total Estimated Study Cost	$13,000,000
Feasibility Phase (Federal)	6,500,000
Feasibility Phase (Non-Federal)	6,500,000

FY 2010 funds are being used to continue the feasibility study. FY2011 funds will be used to continue the feasibility study. The completion date for the feasibility study is "To Be Determined".

CONSTRUCTION

APPROPRIATION TITLE: Construction – Dam Safety Assurance

PROJECT: Bluestone Lake, WV Dam Safety Assurance (Continuing)

LOCATION: The dam is located in southern WV, in Summers County, on the New River two miles south of Hinton, WV. It is situated 2.5 miles downstream from the confluence of the New and Bluestone Rivers, and 0.8 miles upstream from the confluence of the New and Greenbrier Rivers.

DESCRIPTION: The dam modifications include stability improvements such as installation of post tensioning high strength steel anchors, and construction of mass concrete thrust blocks at the downstream face of the dam. The height of the dam will be raised by 8 feet and an additional monolith constructed at the east abutment to prevent overtopping of the existing dam and safely accommodate the probable maximum flood. A floodgate closure will be constructed across a state highway at the west abutment. The existing hydropower penstocks will be extended and retrofitted with gates to supplement the discharge capacity of the spillway and outlet works. As a result of an Issue Evaluation Study (IES), project actions have been prioritized to most effectively reduce risk. Several actions are being accelerated for the purpose of risk reduction. One issue of significance that this IES revealed was scour potential in the discharge areas of the penstocks and the original stilling basin which could lead to dam failure. Therefore, scour protection in the penstock area is being accelerated and the scour issue impacting the dam's spillway capacity will be addressed in future phases. All work is programmed.

AUTHORIZATION: Executive Order of the President 7183-A, September 12, 1935; Flood Control Acts of 1936 and 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:

Original Project	
Actual Federal Cost	$ 28,618,100
Actual Non-Federal Cost	0
Total Original Project Cost	$ 28,618,100

Project Modification	
Estimated Federal Cost	$ 232,000,000
Estimated Non-Federal Cost	0
Total Estimated Modification Cost	$ 232,000,000 1/
Total Estimated Project Cost	$ 260,618,100

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Project Modification	20	TBD

PHYSICAL DATA

Increase height of dam 8 feet; install anchors and thrust blocks; construct gate closure across State Route 20; modify penstocks to supplement discharge capacity and provide adequate scour protection; address scour potential in spillway to meet necessary discharge capacity; relocate electrical lines.

1/ Project Cost Estimate currently under review given recent findings in the Issue Evaluation Study (IES) which identified critical risk and safety issues at the project. The project cost is expected to increase substantially.

			ACCUM PCT OF EST
Allocations to 30 September 2009	$	91,223,000	
Recovery Act Allocations as of 31 Dec 2009	$	40,566,601	
Conference Allowance for FY 2010	$	81,911,000	
Allocation for FY 2010	$	81,911,000	
Allocations through FY 2010	$	209,134,000	92 2/
Allocation requested for FY 2011	$	15,000,000	
Programmed Balance to Complete after FY 2011	$	3,299,399	3/
Unprogrammed Balance to Complete after FY 2011	$	0	

2/ Based on current total project cost, which is under review.
3/ Balance to complete may change after review of cost estimate based on IES findings and projections of work to be done.

JUSTIFICATION: Project categorized as Dam Safety Action Classification (DSAC) II project in the Corps' Screening Portfolio Risk Analysis (SPRA) in 2005, which is an "Urgent" safety classification. The Dam Safety Assurance Program provides for modification of completed Corps dam projects which are potential safety hazards in light of present-day engineering standards. An Issue Evaluation Study (IES), risk assessment, done by Bureau of Reclamation and Corps personnel identified an unacceptable level of risk and life safety issues at the project. The Project Delivery Team with international experts and experts from academia is addressing several issues related to scour and rock strengths in an effort to strategically reduce risk levels at the project. The Interim Risk Reduction Measures Plan is being updated accordingly. Congressional/state/local briefings were held in November 2008 and emergency exercises were performed in December 2008 and January 2009, with state and local entities participating. All affected counties received local leadership briefings and public meetings were held in all counties. Based on a downstream hazard assessment, there is sufficient justification to modify the project to accommodate 100% of the Probable Maximum Flood. It has been determined that there is a 4.5% annual probability that Bluestone Dam will reach a pool that threatens the dam's stability, the Imminent Failure Flood (IFF) elevation. Failure would cause catastrophic flooding along the Greenbrier, New, Gauley, Kanawha, and Elk Rivers and at the heavily industrialized state capital of Charleston, WV, putting 115,000 people at risk with property damages in excess of $6,500,000,000. Average annual benefits, all flood control, are $80,493,000.

FISCAL YEAR 2010: The current amount will be applied as follows:

Complete Phase 2B construction	$ 2,000,000
Initiate Phase 3 - penstock scour protection installation	$ 40,000,000
Initiate Phase 4 – IRRM anchors in critical monoliths	$ 38,000,000
Continue Planning, Engineering, and Design	$ 4,000,000
Continue Construction Management	$ 2,700,000
Total	$ 86,700,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

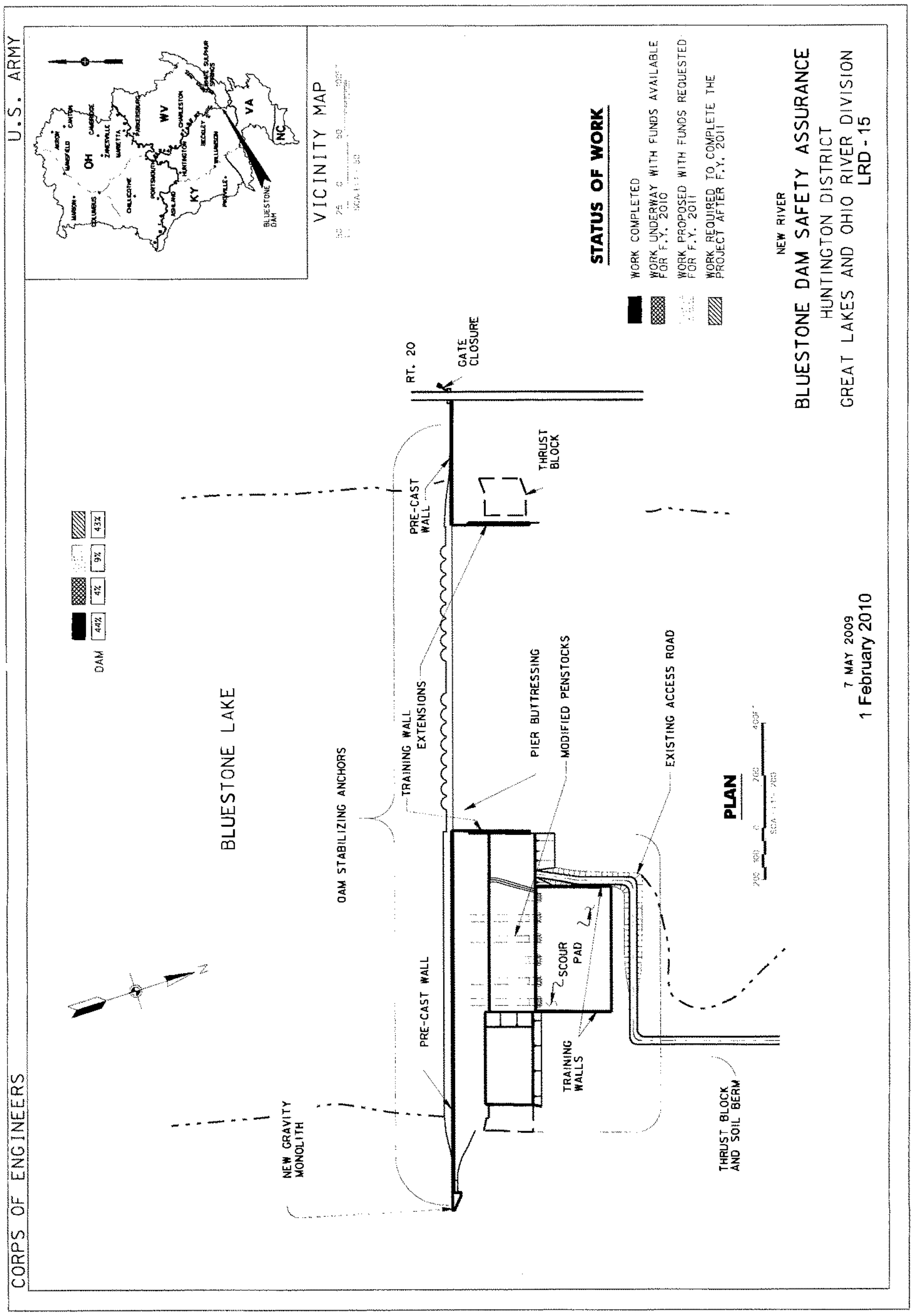
Continue Phases 3 and 4 Construction	$ 5,500,000
Initiate and complete interim risk management activities	$ 4,600,000
Continue Planning, Engineering and Design	$ 3,600,000
Continue Construction Management	$ 1,300,000
Total	$ 15,000,000

NON-FEDERAL COST: None. The dam safety assurance modification is being performed at full Federal expense.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $ 232,000,000 is unchanged from the latest estimate presented to Congress (FY 2010). The project cost estimate is being reassessed, however, given the findings of the Issue Evaluation Study.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with EPA on August 31, 1998.

OTHER INFORMATION: The Bluestone Dam, WV, Final Evaluation Report and Environmental Impact Statement were approved August 13, 1998. The scheduled completion date is the same as the latest presented to Congress (FY 2010), "To Be Determined."


U.S. ARMY
CORPS OF ENGINEERS
VICINITY MAP
OH
WV
KY
VA
NC
AKRON
CANTON
MANSFIELD
CAMBRIDGE
ZANESVILLE
MARIETTA
PARKERSBURG
MARION
COLUMBUS
CHILLICOTHE
PORTSMOUTH
ASHLAND
HUNTINGTON
CHARLESTON
BECKLEY
WILLIAMSON
PIKEVILLE
WHITE SULPHUR SPRINGS
BLUESTONE DAM
STATUS OF WORK
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2011
NEW RIVER
BLUESTONE DAM SAFETY ASSURANCE
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION
LRD-15
DAM
44%
4%
9%
43%
BLUESTONE LAKE
DAM STABILIZING ANCHORS
TRAINING WALL EXTENSIONS
PRE-CAST WALL
RT. 20
GATE CLOSURE
THRUST BLOCK
PIER BUTTRESSING
MODIFIED PENSTOCKS
EXISTING ACCESS ROAD
SCOUR PAD
TRAINING WALLS
NEW GRAVITY MONOLITH
THRUST BLOCK AND SOIL BERM
N
PLAN
7 MAY 2009
1 February 2010

APPROPRIATION TITLE: Construction, General – Dam Safety Assurance, Major Rehabilitation

PROJECT: Center Hill Dam Safety Major Rehabilitation, Caney Fork River, Tennessee (Continuing)

LOCATION: Center Hill Dam is located at Mile 26.6 on the Caney Fork River in DeKalb County, Tennessee, 55 miles east of Nashville, Tennessee.

DESCRIPTION: Center Hill Dam has been in service for 60 years providing flood control, hydropower, recreation, water supply and water quality benefits. The Dam has a maximum height of 250 feet and consists of a 1,382 foot long concrete section, a 778 foot long rolled earth embankment and a 125 foot high by 770 foot long earthen saddle dam in the right rim. The dam impounds 2,092,000 acre-feet at its maximum flood control pool elevation. Since construction, seepage problems through the karst limestone dam foundation have cost millions of dollars in monitoring, subsurface investigation and grouting. Over recent years, seepage has increased. Foundation conditions are deteriorating because of erosion along open and clay-filled joints and solution features in the rock within the rims and dam foundation. Erosion jeopardizes the two earthen embankments, the abutments and the integrity of the rims. The Major Rehabilitation Evaluation Report dated 30 May 2006 evaluated several alternatives to improve the long term reliability of the dam. The recommended alternative, which is also the National Economic Development alternative, includes: 1) a grout curtain into main embankment foundation, left groin and left rim, approximately 4,000 feet long; 2) a grout curtain into right abutment, right rim and saddle dam, approximately 2,400 feet long and 3) a concrete barrier wall into foundation of main dam and saddle dam embankments, and 4) rehabilitation of Station Service Power House hydropower unit to improve reliability and enhance environmental performance. This work on the 2-MW unit is needed to mitigate downstream flow loss resulting from the remedial work. Major Rehabilitation Evaluation Report was approved July 14, 2006.

AUTHORIZATION: Flood Control Act of 1938 and the River and Harbor Act of 1946

REMAINING BENEFIT-REMAINING COST RATIO: 2.6 at 7.0 percent.

TOTAL BENEFIT-COST RATIO: 2.6 at 7.0 percent.

INITIAL BENEFIT-COST RATIO: 3.4 at 5 1/8 percent (FY 2006).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation, dated July 2006, at January 2006 price levels.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$ 292,000,000			
Programmed Construction	$ 292,000,000	Entire Project	30	Sep 2013
Total Estimated Project Cost	$ 292,000,000			

PHYSICAL DATA
Cutoff Wall 1,600 feet long, Grout Curtain 6,400 feet long

Division: Great Lakes and Ohio River District: Nashville Center Hill Dam Safety Major Rehab, TN

1 FEBRUARY 2010

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	7,100,000 1/	
Allocation for FY 2008	31,488,000	
Allocation for FY 2009	36,102,000 2/	
Conference Allowance for FY 2010	52,907,000	
Allocation for FY 2010	52,907,000	
Allocations through FY 2010	127,597,000	45
Allocation Requested for FY 2011	77,800,000	71
Programmed Balance to Complete after FY 2011	TBD	
Unprogrammed Balance to Complete after FY 2011	0	

1/ Funded from Dam Safety and Seepage/Stability Correction Program.
2/ Reflects $15M reprogrammed to Wolf Creek Dam Safety Major Rehabilitation project.

JUSTIFICATION: Continued, uncontrolled seepage creates the potential for dam failure or partial loss of the reservoir. Karst foundation seepage is difficult to accurately predict, however, in the event of failure, downstream damages would likely exceed a billion dollars. There is a probable loss of life associated with dam failure.

FISCAL YEAR 2010: The allocated amount will be applied as follows:

Continue Dam Embankment & Left Rim Grouting Contract	$ 33,607,000
Initiate Contract for Barrier Walls, Grouting Concrete Dam	10,000,000
Complete Station Service Generator Rehabilitation	1,000,000
Planning, Engineering and Design	3,800,000
Construction Management	4,500,000
Total	$ 52,907,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Barrier Walls, Grouting Concrete Dam	67,700,000
Planning, Engineering and Design	4,900,000
Construction Management	5,200,000
Total	$ 77,800,000

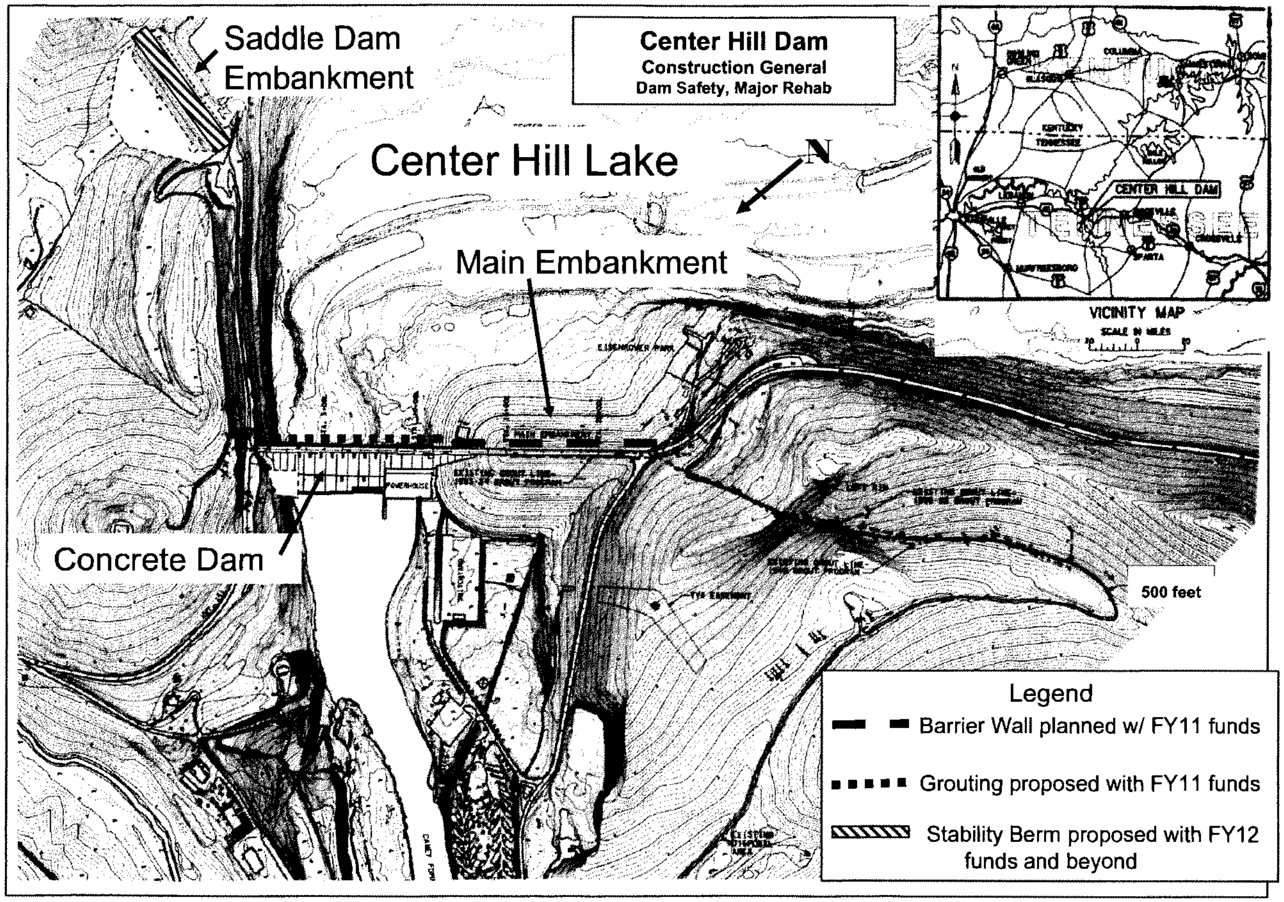
STATUS OF LOCAL COOPERATION: This Major Rehabilitation project is designed as a reliability-based improvement. There are no anticipated efficiency benefits. The project will require full initial federal funding. There are two classes of users that will be required to share in the final cost of this project, the water supply and hydropower customers. Three water supply users currently have signed agreements with Nashville District. The users are the Cities of Cookeville and Smithville plus Riverwatch Resort. Hydropower from the project is marketed through the Southeastern Power Administration (SEPA). SEPA will repay their share of the costs by periodic direct payment to the U.S. Treasury after construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current cost estimate of $292,000,000 is an increase of $23,300,000 from the latest estimate ($268,700,000) presented to Congress (FY2010). The change includes the following items.

Item	Amount
Price Level Updating and Inflation	23,300,000
Total	23,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An environmental assessment (EA) was completed early in the study process and a finding of no significant impact (FONSI) was signed in July 2005. An EA Supplement was completed to address additional alternatives and the FONSI was signed in May 2006. A second supplemental EA was completed in December 2007 to address specific grouting methods proposed by potential construction contractors. An EIS evaluating lower lake level alternatives during construction was completed in November 2007 and a Record of Decision (ROD) was signed in February 2008.

OTHER INFORMATION: Probable loss of life with dam failure is 357, with a range from 184 to 533. The 2005 Corps-wide Screening Portfolio Risk Assessment for Dam Safety ranked Center Hill Dam in Class I category for Corps dams nationwide. ASA(CW) concurred with the report recommendations on August 14, 2006. Design for construction began in FY 2007 utilizing Dam Safety and Seepage/Stability Correction Program funds. The first major construction contact was awarded in February 2008. The second major contract is planned to be awarded in July 2010.



Center Hill Dam
Construction General
Dam Safety, Major Rehab

Saddle Dam Embankment
Center Hill Lake
N
Main Embankment
Concrete Dam
VICINITY MAP
CENTER HILL DAM
500 feet
Legend
Barrier Wall planned w/ FY11 funds
Grouting proposed with FY11 funds
Stability Berm proposed with FY12 funds and beyond

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Des Plaines River, IL (Continuing)

LOCATION: The project area is located in Lake and Cook Counties in northeastern Illinois and has a drainage area of approximately 500 square miles.

DESCRIPTION: The project consists of six elements: two levee units, expansion of two existing reservoirs, raising of one existing dam to increase storage, construction of one new lateral storage area, and environmental mitigation. Both levee units are a combination of floodwalls, levees, and closure structures; and both provide residents with a 100-year level of protection in addition to significant transportation benefits.

AUTHORIZATION: Water Resources Development Act of 1999 (P. L.106-53).

REMAINING BENEFIT-REMAINING COST RATIO: 2.7 to 1 at 7 percent (Entire project)
1.4 to 1 at 7 percent (Big Bend Lake)
3.8 to 1 at 7 percent (Levee 37)

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 percent (Entire project)
1.1 to 1 at 7 percent (Levee 37)
1.0 to 1 at 7 percent (Big Bend Lake)

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent (Entire project)
3.0 to 1 at 6 5/8 percent (Levee 37)
1.5 to 1 at 6 5/8 percent (Big Bend Lake)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest approved feasibility report, dated June 1999 at October 1998 price levels.

RISK INDEX: 1,920

BASIS of RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$61,000,000
Estimated Non-Federal Cost		33,000,000
Cash Contributions	4,700,000	
Other Costs	28,300,000	
Total Estimated Project Cost		$94,000,000

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	30	To be determined

PHYSICAL DATA	
Levees and Floodwalls	2 Miles
Reservoirs	1,063 Acre Feet
Dam	500 Acre Feet
Storage Areas	412 Acre Feet

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2007	$ 12,520,000	
Allocations for FY 2008	6,001,000	
Allocation for FY 2009	6,000,000	
Conference Amount for FY 2010	4,729,000	
Recovery Act Allocations as of 31 Dec 2009	1,620,000	
Allocation for FY 2010	4,729,000	
Allocations through FY 2010	30,870,000	51
Allocation Requested for FY 2011	6,500,000	61
Programmed Balance to Complete After FY 2011	23,630,000	
Unprogrammed Balance to Complete after FY 2011	0	

JUSTIFICATION: The Des Plaines River has a long history of frequent floods causing significant economic losses in the Chicago metropolitan area. 1986/1987 flooding of the Des Plaines River resulted in an estimated $100,000,000 in damages to this densely populated area of 10,000 dwellings and 300 commercial/industrial sites. Flooding also resulted in closure of Interstate 90/94 and severely disrupted the entire Chicago metropolitan area transportation network, including closure of one of the main airports, O'Hare International Airport, the first time ever for a non-winter event, for over 24 hours. O'Hare was surrounded by floodwaters, and egress was possible only by foot down Interstate 90 for stranded passengers. Over 15,000 residents were evacuated from the flooded area. There were 7 fatalities associated with the 1986/1987 flood events on the Des Plaines River including 6 deaths related to basement flooding which included electrocution and 1 death due to drowning during evacuation. Portions of the watershed are among the most rapidly developing in the Chicago metro area. Near record flooding occurred again in 2007, resulting in damage to structures, road closures and 1 fatality. Population density; residential and commercial development; and flat topography still result in substantial risks to life and safety despite lower flood depths and velocities as well as significant damages to 73 municipalities in the watershed. Flooding affects residential, commercial and industrial structures, and the large, dense transportation network in this area of over

JUSTIFICATION (continued):
800,000 residents. There are also effects to communication, emergency egress, safe drinking water supply and hospitals. The Governor of Illinois declared Lake and Cook Counties area of Des Plaines watershed a disaster area during May 2004 and August 2007 flood events. August 2007 flooding caused annual damages and economic impacts of $40,000,000 in the uncompleted portion of the project area. Flooding caused evacuation of residents and numerous road closings for over a week. On Friday, October 3, 2008, President Bush declared the Chicago area a disaster area, enabling people hurt by the disastrous flooding following near-record rainfall beginning September 13th to seek federal help in recovery. The September 2008 event was equivalent to the flood of record, and caused an estimated $87,000,000 in damages. This project will reduce significant residential, commercial, industrial, and transportation damages by reducing river stages and duration of flooding. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain.) Risks affect communication, emergency egress, drinking water & hospitals and large population. The FY 2011 Budget includes funding for this project primarily to address significant risk to human safety. Average annual flood damage benefits are estimated at $9,961,000 for the entire Des Plaines River, IL project.

FISCAL YEAR 2009 ARRA: Complete Pump Station#2 at Levee 37 $ 1,620,000

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue construction of Levee 37	$ 4,000,000
Engineering and Design	229,000
Construction Management	500,000
Total	$ 4,729,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete construction of Levee 37	$ 5,500,000
Engineering and Design	300,000
Construction Management	700,000
Total	$ 6,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$9,977,000	

NON-FEDERAL COST: (Continued)

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project, which may be reduced for credit allowed based on prior work (Section 104 of the Water Resource Development Act of 1986) after reductions for such credit have been made in the required cash payments.	18,323,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,700,000	$390,000
Total Non-Federal Costs	$33,000,000	$390,000

The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of Illinois is the local sponsor for the project. The Project Cooperation Agreement (PCA) was executed on 12 Oct 2007. The local sponsor has received ASA(CW)'s approval for Section 104 credit in the amount of $14,711,000.

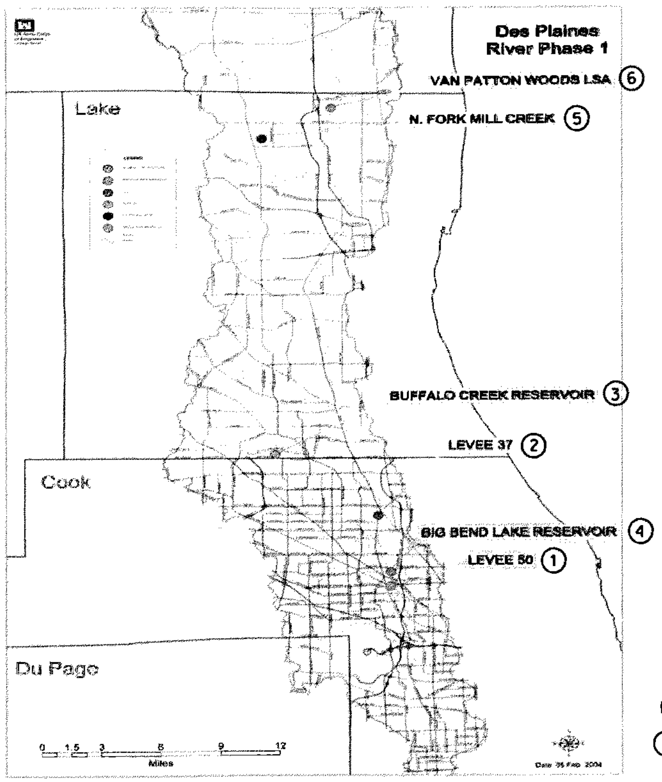
COMPARISON OF FEDERAL COST ESTIMATE: The Federal cost estimate of $61,000,000 is an increase of $9,300,000 over the previously estimated cost of $51,700,000, last presented to Congress (FY 2010). This increase is due to price levels, inflation adjustments and post contract award adjustments.

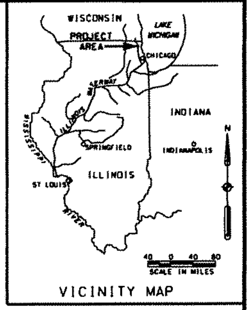
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the United States Environmental Protection Agency on 15 July 1999. The Record of Decision was signed on 5 January 2000. A supplemental EIS was filed on 11 May 2006. The Record of Decision was signed on 16 June 2006.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1998. The local sponsor initiated and completed construction of gates in FY1999 and awarded a pump station contract in June 2003 that was completed in FY 2005. The local sponsor awarded a construction contract of the final phase of Levee 50 in FY 2006, which is scheduled to be completed in June 2010. The scheduled completion date is the same as the latest presented to Congress (FY 2010), "To Be Determined".

CORPS OF ENGINEERS

U. S. ARMY





VICINITY MAP

SCHEDULES	Project No.
WORK COMPLETED AS OF 30 SEPTEMBER 2009	1
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010	2
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011	2
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011	2, 3, 4, 5, & 6

NOTE:

① LEVEE 50 CONSTRUCTED BY NON-FEDERAL SPONSOR

DES PLAINES RIVER
ILLINOIS

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

1 FEBRUARY 2010

APPROPRIATION TITLE: Construction – Dam Safety Assurance

PROJECT: Dover Dam, Muskingum River, OH Dam Safety Assurance (Continuing)

LOCATION: The Dover Dam is located on the Tuscarawas River, a tributary of the Muskingum River, in Tuscarawas County, OH. The dam is located 173.6 miles above the mouth of the Muskingum River.

DESCRIPTION: The Dover Dam is a concrete gravity dam. The dam was constructed by the Corps of Engineers and completed in 1937. It is a concrete gravity dam with rock and earth fill. The dam is 820 feet long and 69 feet high with a drainage area of 1397 square miles. Dover Dam is a dry dam allowing the Tuscarawas River to flow freely through the dam for a significant portion of time and only retains water when necessary for flood protection and flood damage reduction. The pool of record occurred in January 2005. Dover Dam was categorized as a Dam Safety Action Classification (DSAC) II project in the Corps' Screening Portfolio Risk Analysis (SPRA), which is an "Urgent" safety classification.

AUTHORIZATION: Authorized by the Public Works Administration on February 20, 1934; as amended by Title XII of the Water Resources Development Act of 1986 (PL 99-662), for Dam Safety Assurance.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT – COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:

Original Project		STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Actual Federal Cost	$26,590,000	Entire Project	5%	TBD
Actual Non-Federal Cost	$8,000,000			
Total Original Project Cost	$34,590,000 1/			

1/ Represents the total cost of 14–dam Muskingum Basin system, of which $7,755,300 can be attributable to Dover Dam.

PROJECT MODIFICATION

Estimated Federal Cost			$ 97,350,000
Programmed Construction		$ 97,350,000	
Unprogrammed Construction		$ 0	
Estimated Non-Federal Cost			$ 3,450,000
Programmed Construction		$ 3,450,000	
Cash Contributions	$ 3,450,000		
Other Costs	$ 0		
Estimated Non-Federal Cost			$ 0
Unprogrammed Construction		$ 0	
Cash Contributions	N/A		
Other Costs	N/A		
Total Estimated Programmed Construction Cost			$ 100,800,000
Total Estimated Unprogrammed Construction Cost			$ 0
Total Estimated Project Cost			$ 100,800,000

			ACCUM PCT OF EST FED COST
Allocations to 30 September 2009	$ 9,329,000	2/	
Recovery Act Allocations as of 31 Dec 2009	$ 0		
Conference Allowance for FY 2010	$ 17,478,000		
Allocation for FY 2010	$ 17,478,000		
Allocations through FY 2010	$ 26,807,000		28%
Allocation requested for FY 2011	$ 36,000,000		
Programmed Balance to Complete after FY 2011	$ 34,543,000		65%
Unprogrammed Balance to Complete after FY 2011	$ 0		

2/ Does not include O&M allocations of $257,900 for study costs.

Division: Great Lakes & Ohio River District: Huntington Dover Dam, Muskingum River, OH
Dam Safety Assurance

PHYSICAL DATA: Corrective measures to be undertaken are identified in the Design Documentation Report and are being outlined in the Plans and Specifications.

JUSTIFICATION: Dover Dam was classified in dam safety action class II in the screening portfolio risk analysis (SPRA). The Dover Dam is hydrologically deficient – it will not safely pass the spillway design flood. The imminent failure flood is below the spillway crest. Periodic inspections of the Dover Dam by the Corps have revealed significant dam safety concerns which have grown over the life of dam. The Corps has determined the dam cannot safely accommodate the Probable Maximum Flood (PMF) event. The dam is also believed to be unstable against sliding under conditions below the PMF due to known faulting and uncertain foundation bedrock quality. The imminent failure flood is below the spillway crest. If a failure were to occur, the estimated population at risk is 41,000 and the potential economic damages are $658,000,000.

FISCAL YEAR 2010: The amount provided will be applied as follows:

Complete Plans and Specifications for Dam Safety Feature	$ 100,000
Initiate Construction of Dam Safety Assurance Anchoring	$ 16,000,000
Continue Engineering and Design During Construction	$ 500,000
Continue Construction Management	$ 878,000
Total $	17,478,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Dam Safety Assurance Anchoring Construction	$ 32,900,000
Continue Engineering and Design During Construction	$ 1,200,000
Continue Construction Management	$ 1,900,000
Total $	36,000,000

NON-FEDERAL COST: In accordance with Section 1203 of the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below. A Project Partnership Agreement (PPA) was executed with the non-Federal partner, the Muskingum Watershed Conservancy District (MWCD) on 24 July 2009.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual OMRR&R Costs
Pay 3.45 percent of the costs of the Dam Safety Assurance corrective measures that are allocated to project purposes (3.45 percent of total project costs).	$ 3,450,000	$ 0
Total Non-Federal Costs	$ 3,450,000	$ 0

The non-Federal sponsor has agreed to make all required payments concurrently with project construction.

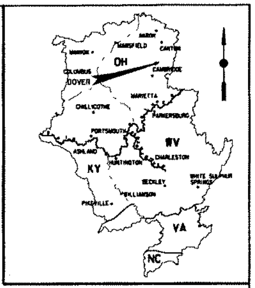
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $97,350,000 is unchanged from the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was prepared in conjunction with the Evaluation Report. The Evaluation Report was approved July 2007 and a concurrence memorandum from the ASA(CW) is dated 30 January 2008.

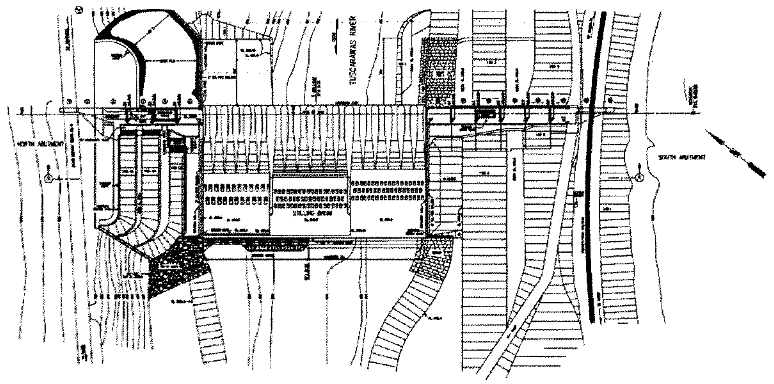
OTHER INFORMATION: Funds were added in the FY 2006 Energy and Water Development Appropriations Act (P.L. 109-103) for the completion of the Dam Safety Assurance Program.

CORPS OF ENGINEERS U.S. ARMY

DAM SAFETY	■	▨	░	▧
	12%	19%	30%	39%



VICINITY MAP



STATUS OF WORK

■	WORK COMPLETED
▨	WORK UNDERWAY WITH FUNDS AVAILABLE FOR F.Y. 2010
░	WORK PROPOSED WITH FUNDS REQUESTED FOR F.Y. 2011
▧	WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2011

MUSKINGUM RIVER
DOVER DAM
HUNTINGTON DISTRICT
GREAT LAKES AND OHIO RIVER DIVISION

7 MAY 2009

1 February 2010

LRD - 29

APPROPRIATION TITLE: Construction – Flood Control

PROJECT: Virginia Element of the Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, VA (Continuing)

LOCATION: Grundy, Virginia is located in Buchanan County in southwestern VA, approximately 17 miles east of Elkhorn City, KY, and approximately 17 miles northeast of Haysi, Virginia. It is situated at the confluence of Slate Creek and the Levisa Fork. Buchanan County is located in southwestern Virginia, adjoining Kentucky and West Virginia. It is about 130 miles west of Roanoke, Virginia and about 52 miles north of Bristol, Virginia / Tennessee. Dickenson County is located in southwestern Virginia and is situated between Buchanan and Wise counties along the Kentucky border. It is approximately 40 miles north of Bristol, Virginia/Tennessee and 150 miles west of Roanoke, Virginia.

DESCRIPTION: The Virginia element of the Tug and Levisa Forks program includes the Town of Grundy, VA and the counties of Buchanan and Dickenson. Primary components of the Grundy project include voluntary floodproofing and floodplain evacuation program for those floodprone structures not impacted by VDOT mandatory acquisition, protection of a portion of the Central Business District (CBD) by means of a ringwall / levee, opportunity for community redevelopment on a prepared floodsafe site, relocation of the public facilities including the town hall and fire station, and upgrade of U.S. 460 to 4-lane highway through the town. Primary components of the Buchanan County project include a voluntary floodproofing and floodplain evacuation program which includes ringwalls to provide protection for Hurley High School and the Buchanan County Technology and Career Center. Minimum level of protection afforded to the voluntary nonstructural participant is equivalent to the April 1977 flood level. Primary components of the Dickenson County project include a voluntary floodproofing and floodplain evacuation program, school relocations for Ervinton HS, Sandlick Elementary School, and the lower buildings of Haysi HS, and a ringwall to provide protection for Clinchco Elementary School. Minimum level of protection afforded to the voluntary nonstructural participant is equivalent to the April 1977 flood or 100-year flood elevation, whichever is greater

AUTHORIZATION: Section 202 of the Energy and Water Development Appropriation Act of 1981 (PL 96-367); as amended by Section 352 of the Water Resources Development Act (WRDA) of 1996 (PL 104-303) – Grundy; as amended by Section 336 of WRDA 2000 (PL 106-543) – Buchanan and Dickenson Counties.

REMAINING BENEFIT-REMAINING COST RATIO: N/A 1/

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

1/ An overall project benefit-cost ratio was not computed because the Congress, in the Energy and Water Development Appropriations Act, 1981, found that the benefits attributable to the flood control measures authorized by the Act exceed their costs.

RISK INDEX: 10,240 to 17,280

BASIS of RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA:

			STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
			Entire Project	30%	TBD
Estimated Federal Cost			$ 315,450,000		
Programmed Construction		$ 315,450,000			
Unprogrammed Construction		$ 0			
Estimated Non-Federal Cost			$ 43,550,000		
Programmed Construction		$ 43,550,000			
Cash Contributions	$ 11,150,000				
Other Costs	$ 32,400,000				
Unprogrammed Construction		$ 0			
Total Estimated Programmed Construction Cost		$ 359,000,000			
Total Estimated Unprogrammed Construction Cost		$ 0			
Total Estimated Project Cost			$ 359,000,000		

Division: Great Lakes and Ohio River District: Huntington Tug and Levisa Forks of the Big Sandy and Upper Cumberland Rivers, VA (Virginia Element)

SUMMARIZED FINANCIAL DATA – CONT.

		ACCUM. PCT. OF EST FED. COST
Allocations to 30 September 2009	$ 90,728,610	
Recovery Act Allocations as of 31 Dec 2009	$ 0	
Conference Allowance for FY 2010	$ 4,000,000	
Allocation for FY 2010	$ 4,000,000	
Allocations through FY 2010	$ 94,728,610	30
Allocation requested for FY 2011	$ 19,500,000	36
Programmed Balance to Complete after FY 2011	$ 201,221,390	
Unprogrammed Balance to Complete after FY 2011	$ 0	

JUSTIFICATION:
Town of Grundy, VA - Grundy has been subject to repeated flooding since its establishment in the late 1850's. In April 1977, the flood of record caused the death of three people and millions of dollars in damages. The scope of the project is limited to those residential and nonresidential structures contained within the April 1977 floodplain and backwater areas of the Levisa Fork and Slate Creek within the corporate limits of the Town of Grundy, Virginia. The April 1977 flood (approx. a 100-year frequency event in Grundy) damaged an estimated 228 residential and nonresidential structures. The Water Resources Development Act of 1996 (P.L. 104-303) directed the Corps to proceed with the implementation of the Grundy project as authorized by Section 202 of the 1981 Water and Energy Appropriations Act in accordance with Plan 3A, as set forth in the preliminary draft Detailed Project Report dated August 1993. The Town of Grundy and VDOT are project co-sponsors.

Buchanan County, VA - The April 1977 flood caused $198 million in damages and varied from a 40-year flood event to over a 100-year flood event in Buchanan County project area. The study area includes all areas flooded during the April 1977 flood, excluding the town of Grundy, on the Levisa Fork and upstream tributaries in Buchanan County, Virginia. Approximately 730 structures are included in the study area

Dickenson County, VA - The April 1977 flood caused $20 million in damages and varied from a 88-year flood event to a 100-year flood event in the Dickenson County project area. The study area includes all areas flooded during the April 1977 flood along the Russell Fork and upstream tributaries in Dickenson County, Virginia. Approximately 225 structures are included in the study area. Additionally, it should be noted that flooding occurring in the mountains of southwestern Virginia is flash-flooding, with less than one hour warning time for area residents. Floods are very destructive due to steep stream gradients, debris loads, and sediment from the high flows. The FWEEP is critical to lowering risk to residents, not only in terms of economic damages but also the threat to loss of life. Four schools in the project area are in use and three of them are located in the regulatory floodway, the highest risk area associated with floodplains. Due to factors of warning time, stream gradients, and debris and sediment, students are at risk if a flood event occurs while they are at school. Project implementation including school relocations, along with a state-of-the-art FWS, greatly reduces the risk of catastrophic consequences.

FISCAL YEAR 2010: The current amount will be applied as follows:

Complete Grundy Implementation	$	2,870,000
Complete Flood Warning and Emergency Evacuation Plans (FWEEPs) for Buchanan and Dickenson Counties	$	120,000
Initiate FWEEP Implementation for Buchanan and Dickenson Counties	$	300,000
Initiate Relocation Agreement Negotiations with Dickenson County Public Schools (DPS)	$	60,000
Complete Design Documentation Report for Dickenson County School Relocations		650,000
Total	$	4,000,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete FWEEP Implementation for Buchanan and Dickenson Counties	$	150,000
Execute Schools Relocation Agreement(s) with DPS	$	60,000
Initiate / Complete Plans and Specs for Dickenson County School Relocations	$	2,850,000
Initiate / Complete Real Estate Acquisition for School Relocations	$	1,500,000
Initiate Construction of Schools	$	14,940,000
Total	$	19,500,000

NON-FEDERAL COST: Construction cost sharing is required in accordance with WRDA 1986. Per that language, the sponsor of each project element for which construction is initiated after 30 April 1986 must provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas (LERRDs); modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the element; pay a cash contribution of no less than 5 percent of the costs allocated to structural flood control to bring the total non-Federal share of structural flood control costs to 25 percent; and bear 25 percent of non-structural flood control costs, including the value of real estate interests and relocations contributed by the sponsor. The Town of Grundy, VA is providing its non-Federal requirements through a combination of LERRDs and in-kind activities in cooperation with the Virginia Department of Transportation and Department of Highways.

In accordance with Section 103(m) of WRDA 1986, these requirements are subject to the ability of the non-Federal sponsor to pay. As a result, the non-Federal share for the Buchanan County and Dickenson County elements is 5% of the total project costs.

In accordance with Section 202, Energy and Water Development Appropriations Act, 1981 and Public Law 99-662, non-Federal interests must bear all costs of operation, maintenance, and replacement of completed facilities.

STATUS OF LOCAL COOPERATION:

A Project Cooperation Agreement for the Grundy, Virginia nonstructural element was executed in August 1998 with the Town of Grundy, Virginia and the Virginia Department of Transportation (VDOT).

A Project Cooperation Agreement for the Dickenson County nonstructural element was executed in January 2005 with the Dickenson County Board of Supervisors.

A Project Cooperation Agreement for the Buchanan County nonstructural element was executed in April 2005 with the Buchanan County Board of Supervisors.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $ 315,450,000 for the Virginia portion of the Section 202 program is the initial estimate presented to Congress (FY 2011).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The final Environmental Impact Statement (EIS) for the Grundy project was filed with the Environmental Protection Agency (EPA) August 1995. The Environmental Assessment (EA) and FONSI were executed for Dickenson County on 2 June 2003. The EA and FONSI were executed for Buchanan County on 28 November 2001.

OTHER INFORMATION: None.

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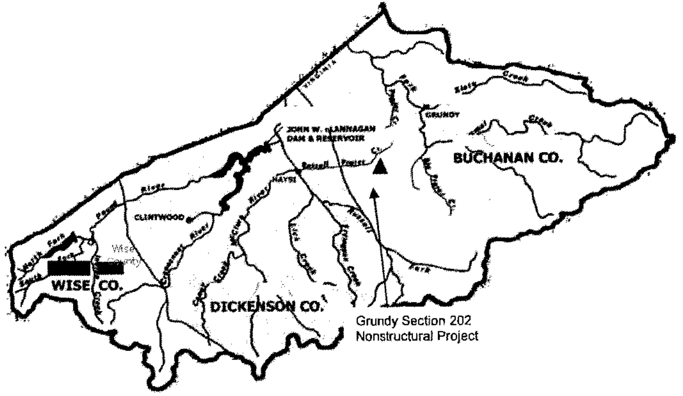
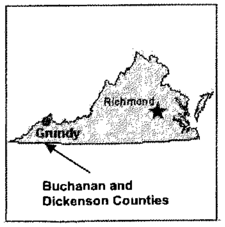
U. S. ARMY



Grundy Section 202
Nonstructural Project

NONSTRUCTURAL WORK	█	▓	▒	░
Grundy, VA	99%	1%		
Buchanan County, VA	1%	1%	1%	97%
Dickenson County, VA	1%	1%	19%	79%



Buchanan and
Dickenson Counties

STATUS OF WORK

Work Completed	█
Work underway with Funds Available for FY 2010	▓
Work Proposed with Funds Requested for FY 2011	▒
Work Required to Complete the Project after FY 2011	░

LEVISA AND TUG FORKS OF THE BIG
SANDY RIVER AND UPPER
CUMBERLAND RIVER WEST VIRGINIA,
VIRGINIA AND KENTUCKY – VIRGINIA
ELEMENT

HUNTINGTON DISTRICT
GREAT LAKES & OHIO RIVER DIVISION

15 January 2010

1 Febr 2010

LRΓ 6

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Little Calumet River, Indiana (Continuing)

LOCATION: Little Calumet River Basin, Northwest Indiana, Lake County.

DESCRIPTION: The project consists of replacing 9.5 miles of existing spoil bank levees with 12.1 miles of new levees, floodwalls, and closure and appurtenant structures between the Illinois-Indiana State line and Cline Avenue in Gary, Indiana; constructing 9.7 miles of set-back levees and appurtenant drainage structures between Cline Avenue and I-65; installing a flow control structure at Hart Ditch; permanent evacuation of 37 structures in the Black Oak area of Gary, Indiana; constructing a betterment levee from Cline to Clark; modifying 7 miles of channel with 3 accompanying bridge modifications; modifying 1 highway bridge; constructing 16.8 miles of hiking/biking trails and accompanying recreation support facilities, and preserving 788 acres of aquatic wildlife habitat. A Post Authorization Change Report was approved in May 1999 extending the eastern limit of the project to include the Marshalltown area.

AUTHORIZATION: Water Resources Development Act of 1986. Energy and Water Development Appropriations of 2006.

REMAINING BENEFIT-REMAINING COST RATIO: 15.41 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.1 to 1 at 8.875 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1994 at 1993 price levels. A Post Authorization Change Report was approved in May 1999.

RISK INDEX: 7,404

BASIS of RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$195,000,000
Estimated Non-Federal Cost		65,000,000
Cash Contributions	29,150,000	
Other Costs	35,850,000	
Total Estimated Project Cost		$260,000,000

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	82	To Be determined

PHYSICAL DATA

Levees and Floodwalls	21.8 miles
Pumping Plant Modifications	17
Structures Removed	37
Structures Flood proofed	53
Channel Modification	7 miles
Hiking Trails	16.8 miles

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2007	$118,001,500	
Allocations for FY 2008	14,760,000	
Allocation for FY 2009	24,000,000	
Conference Allowance for FY 2010	20,000,000	
Recovery Act Allocations as of 31 Dec 2009	3,000,000	
Allocation for FY 2010	20,000,000	
Allocations through FY 2010	179,761,500	92
Allocation Requested for FY 2011	10,000,000	97
Programmed Balance to Complete After FY 2011	5,238,500	
Unprogrammed Balance to Complete after FY 2011	0	

JUSTIFICATION: Overbank flood damages occur to 10,000 structures, primarily residential, along the Little Calumet River in Indiana within the communities of Hammond, Highland, Munster, Griffith and Gary. The total value of these structures exceeds $775,000,000. Continued flood damages occur to commercial and public buildings, and the transportation network. The major East/West highway transportation link in the Chicago metropolitan area, Interstate 80/94, is susceptible

JUSTIFICATION (Continued):
to flooding from the Little Calumet River. Interstate 80/94 is heavily traveled, with average annual daily traffic of 160,000 vehicles, of which 40% are trucks. Annual benefits are estimated at $18,550,000. Completion of the project will reduce damages from flood events up to the 200-year flood event. This project benefits1,200,000 people and 10,000 dwellings. An estimated $35,000,000 in flood damages were incurred and one life lost in the November 1990 flood. The communities of Hammond and Munster, IN were inundated. The President declared the area inundated by the November 1990 flood a National Disaster Area on December 6, 1990. The State of Indiana continues to rate the flood damage potential along the Little Calumet River as the most severe in the state. The project avoids the short and long-term adverse impacts associated with the destruction or modification of wetlands by designating the existing wetland areas in the Gary reach for overbank flood storage, a vital requirement of the hydraulic operation and design of the project, and hence required project lands. Environmental attributes are being mitigated along the river corridor. Construction of the Hart Ditch Control structure is required to meet statutory requirements to minimize flow impacts (for all events up to the 100 year) to the State of Illinois communities, resultant from changes to the floodplain/floodway in Indiana as part of the Project. Additionally, the Control Structure minimizes impact to the flow volume attributable to the State of Illinois' Lake Michigan Diversion, which is regulated by Supreme Court Decree. Also critical is rehabilitation of existing pump stations to eliminate risks from interior flooding that could result since the existing system is insufficient to provide significant protection from interior runoff during major storm events along the West Reach of the project. An intense localized rainfall event occurred on September 13, 2006 that was centered over the communities of Highland and Griffith, Indiana resulting in widespread flooding and damage to approximately 1,500 homes. The precipitation event was estimated to be a 600 year event rainfall over these communities. An August 2007 flood breached an existing spoil bank levee resulting in significant flooding. I-80/94 was shut down for 3 days due to high river stages and intense rainfall. August 2007 flooding was a 25 year event causing damages and economic impacts of $27,600,000. There was also a severe flooding in September 2008 causing significant damages including breach of existing spoilbank levee, inundating densely populated areas risking life and safety. September 2008 breach occurred without warning, resulting in emergency evacuation of residents. Flooding caused a natural gas explosion and fire, destroying one home & causing significant damage to gas distribution system. The FY 2011 Budget includes funding for this project primarily to address significant risk to human safety. The Corps made this determination based on many factors such as the likelihood and magnitude of the potential flooding, the number of people living in the flood plain, the likely warning time, the availability of evacuation routes, and site-specific engineering factors. Lake County, Indiana qualifies as an area of persistent and chronic unemployment.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	15,917,000
Recreation	411,000
Land Enhancement	2,222,000
Total	18,550,000

FISCAL YEAR 2009 ARRA: Continue and complete Jackson Street Pump as part of Pumps 2B contract $ 3,000,000

FISCAL YEAR 2010: The current amount is being applied as follows:

Complete construction of Stage V-2	$ 2,000,000
Complete construction of Pumps 2	$ 6,000,000
Continue construction of Stage VII	5,500,000
Continue construction of Stage VIII	5,000,000
Engineering and Design	300,000
Construction Management	1,200,000
Total	$ 20,000,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete construction of Stage VII		$ 3,000,000
Complete construction of Stage VIII	6,000,00	0
Engineering and Design		200,000
Construction Management		800,000
Total		$ 10,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing requirements contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Annual Payment During Construction and Reimbursements	Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	18,679,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project, reduced for credit allowed based on prior work (Section 104 of the Water Resource Development Act of 1986; $1,667,200) after reductions for such credit have been made in the required cash payments.	17,171,000	

Division: Great Lakes and Ohio River District: Chicago Little Calumet River, IN

NON-FEDERAL COST: (continued)

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay one-half separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities;	2,919,000	
Pay approximately 5 percent of the costs allocated to flood control (other than non-structural measures) to bring the non-Federal share of flood control costs to 25 percent as determined under Section 103 (m) of the Water Resource Development Act of 1986, as amended; to reflect credit allowed for prior work (Section 104 of the Water Resource Development Act of 1986; $1,667,200); and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	24,266,000	150,000
Pay 25 percent of the first cost allocated to non-structural flood control measures.	1,965,000	
Total Non-Federal Costs	$65,000,000	$ 150,000

STATUS OF LOCAL COOPERATION: The Little Calumet River Basin Development Commission is the local sponsor for the project. The Local Cooperation Agreement (LCA) was executed on August 16, 1990. The LCA was supplemented twice to include the East Reach Remediation, 30 July 1999 and Burr Street Betterment, 26 April 2000. The current non-Federal cost estimate of $65,000,000, which includes a cash contribution of $29,150,000, is an increase of $41,400,000 from the non-Federal cost estimate of $23,600,000 noted in the Local Cooperation Agreement, which included a cash contribution of $4,800,000. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. The local sponsor has received approval for Section 104 credits in the amount of $1,667,200.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $195,000,000 is an increase of $11,000,000 from the latest estimate ($184,000,000) presented to Congress (FY 2010). This change includes the following items:

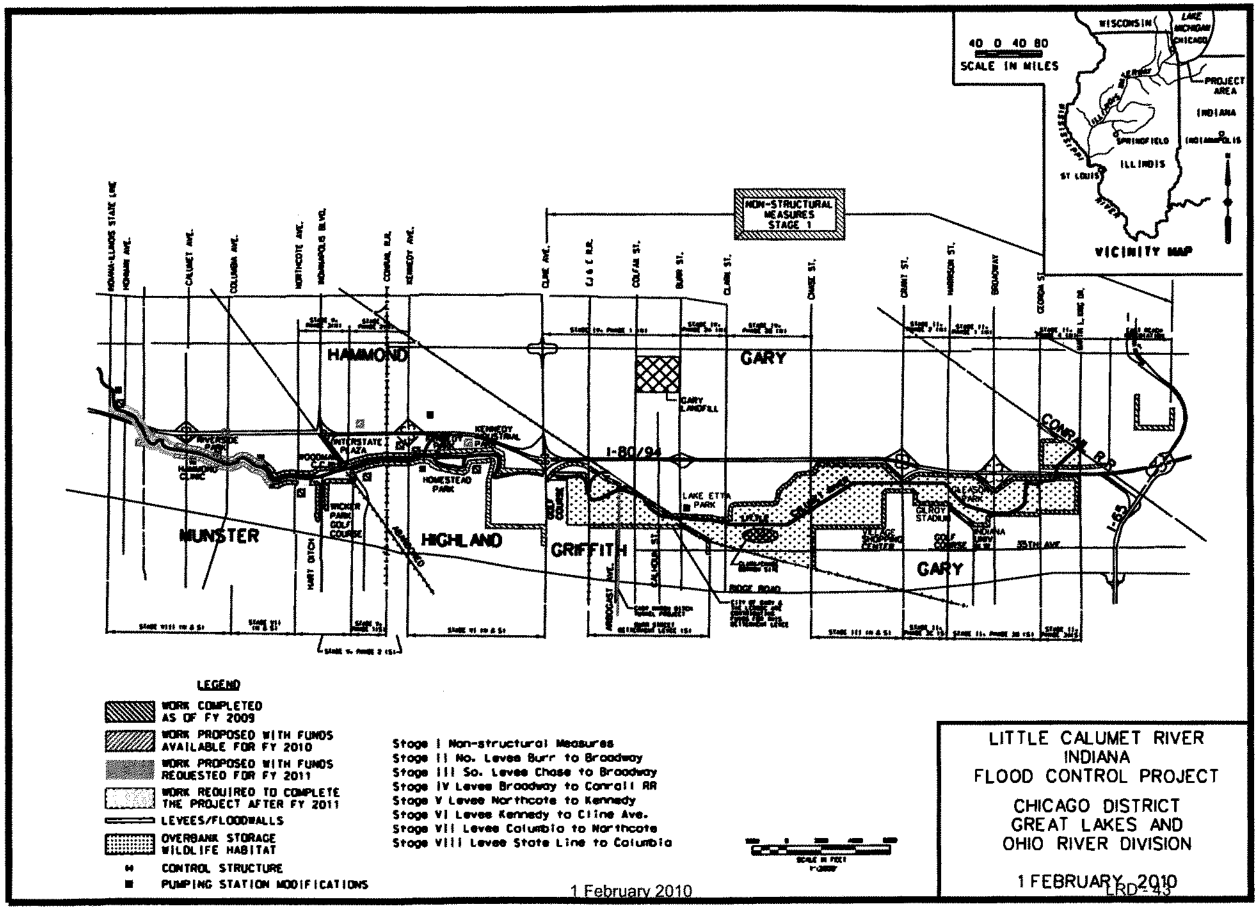
Item	Amount
Price Escalation on Construction Features	$ 1,000,000
Post Contract Award and Other Estimating Adjustments	$10,000,000
Total	$11,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the United States Environmental Protection Agency on February 3, 1984. The Record of Decision was signed on July 13, 1990. Environmental Assessments (EA) were subsequently prepared addressing potential borrow and disposal sites which were not covered in the EIS and the three Findings of No Significant Impact were signed on May 9, 1990, July 11,1991 and April 21, 1992. A supplemental Environmental Impact Statement was completed for the levee re-alignment, excavated ponding areas and new borrow sites. The Record of Decision was signed on June 23, 1995.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1984 and funds to initiate construction were appropriated in FY 1990. Fish and wildlife mitigation costs for this project are estimated at $5,220,000. There is a potential that project may exceed the 902 limit. Chicago District is preparing a Post Authorization Contract Report to address this limit.

The scheduled completion date is the same as the latest presented to Congress (FY 2010), "To Be determined".

CORPS OF ENGINEERS U.S. ARMY



1 February 2010

LITTLE CALUMET RIVER
INDIANA
FLOOD CONTROL PROJECT

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

1 FEBRUARY 2010

LRD-43

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: McCook and Thornton Reservoirs, Illinois (Continuing)

LOCATION: The project area covers 341 square miles of the combined sewer area in Cook County in Chicago and 48 adjacent suburban communities.

DESCRIPTION: The authorized project consists of constructing two reservoirs from stone quarries located in McCook and Thornton, Cook County, Illinois with floodwater storage capacities of 29,000 acre-feet (9.45 billion gallons) and 14,600 acre-feet (4.8 billion gallons), respectively. The Thornton Reservoir project authorization was modified to evaluate inclusion of the storage associated with the National Resource Conservation Service's Thorn Creek Reservoir. The composite reservoir at Thornton, determined feasible in a 2003 Limited Re-evaluation Report, has a combined capacity of 24,200 acre-feet (7.8 billion gallons). Both McCook and Thornton will serve as the termini of the Metropolitan Water Reclamation District of Greater Chicago's Tunnel and Reservoir Plan (TARP) Phase I tunnels. TARP was developed by Federal, State, regional and local governments as a regional plan for reducing flood damages and improving water quality in area waterways. The two reservoirs will capture and store combined sewer flows from the tunnel systems for later treatment after the storm event. Currently, when the tunnels reach their capacity, the combined flow of storm water and raw sewage backs up through the sewer system into basements of homes and businesses and on to the roadways and is discharged directly into area waterways. When storm events are severe, the navigation locks on the Chicago River must be opened to release the combined sewer flow into Lake Michigan - the source of drinking water for millions. Reservoir features include pumps, a grout curtain and overburden cutoff wall, main and distribution tunnels, gates and valves, hydraulic structures, wall stabilization, and aeration and wash-down systems.

AUTHORIZATION: Water Resources Development Act of 1988, modified by the Water Resources Development Act of 1999. Water Resources Development Act of 2007, Section 5157.

REMAINING BENEFIT-REMAINING COST RATIO: 4.2 to 1 at 7 percent (McCook and Thornton combined).
8.5 to 1 at 7 percent (McCook only)

TOTAL BENEFIT-COST RATIO: 2.2 to 1 at 7 percent. (McCook and Thornton combined)
2.8 to 1 at 7 percent (McCook only)

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 percent.

BASIS OF BENEFIT-COST RATIO: McCook Reservoir benefits are based on the latest available evaluation in the Final Special Reevaluation Report dated February 1999 at October 1997 price levels. Thornton Reservoir benefits are based on the economic evaluation completed for the Limited Reevaluation Report dated July 2003 at October 2001 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$ 614,000,000
Estimated Non-Federal Cost		204,000,000
Cash Contributions	102,825,000	
Other Costs	101,175,000	
Total Estimated Project Cost		$ 818,000,000

STATUS PERCENT (1 Jan 2010)	PHYSICAL COMPLETE	COMPLETION SCHEDULE
McCook Reservoir	44	To Be determined
Thornton Reservoir	0	To Be determined
Entire Project	30	To Be determined

	ACCUM.	PCT. OF EST. FED. COST
Allocations to 30 September 2007	177,135,000	
Allocations for FY 2008	29,490,000	
Allocation for FY 2009	28,709,000	
Conference Allowance for FY 2010	19,376,000	
Recovery Act Allocations as of 31 Dec 2009	0	
Allocations for FY 2010	19,376,000	
Allocations through FY 2010	254,710,000	41
Allocation Requested for FY 2011	40,000,000	48
Programmed Balance to Complete After FY 2011	319,290,000	
Unprogrammed Balance to Complete after FY 2011	0	

PHYSICAL DATA

McCook Reservoir Storage Capacity	21,400 acre-feet
Thornton Reservoir Storage Capacity	24,200 acre-feet

JUSTIFICATION: The McCook and Thornton Reservoirs Project covers 341 square miles of the combined sewer area in Chicago and suburban communities. Within this region, nearly 1,200,000 structures suffer flooding attributable to combined storm sewer outfall submergence caused by the inadequate capacity of area waterways. The McCook Reservoir will provide additional storage capacity beyond that of its billion gallon capacity connecting tunnel system and will provide flood damage reduction benefits to Chicago and 37 suburban communities where 146,000 homes and businesses flood annually. The Thornton Reservoir will provide additional storage capacity beyond that of its half billion gallon capacity connecting tunnel system and will provide flood damage reduction to Chicago and 13 suburban communities where nearly 200,000 homes and businesses flood annually. The project will also improve water quality in area waterways, reduce untreated sewage backflow into Lake Michigan and reduce beach closures. The project benefits over 3 million people. The sponsor, the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC), has been under pressure from the USEPA to have at least Stage 1 of the McCook Reservoir constructed by CY 2014 when their current NPDES (National Pollution Discharge Elimination System of the Clean Water Act) permit expires. Department of Justice requested

JUSTIFICATION (continued): MWRDGC to sign an Administrative Order with USEPA on a timeline to get McCook Reservoir constructed and operational. Delays in completion of the project, due to inadequate pace of past Federal funding, could force Department of Justice to order enforced settlement to comply with the Clean Water Act. Risks to human health are high due to continued contaminated floodwaters. One of the intended purposes of this project is to prevent sewage backflow to Lake Michigan which impacts the primary drinking water source for the Chicago metropolitan area and damages the aquatic ecosystem, including fish tainting, contaminant uptake by aquatic organisms and degradation of spawning areas. The elimination of backflows of raw sewage to Lake Michigan is a priority issue of the Great Lakes Governors and Mayors.

Average annual benefits for McCook and Thornton Reservoirs are as follows:

Annual Benefits	Amount
Flood Damage Prevention	89,848,000
Water Quality	15,560,000
Water Supply	10,110,000
Recreation 1,088,00	0
Total	$ 116,606,000

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue construction of Main Tunnel Gates - McCook Reservoir	$	5,376,000
Continue construction of Main Tunnel Shaft- McCook Reservoir		5,000,000
Continue construction of Stage II Grout - McCook Reservoir		5,500,000
Initiate construction of Main Tunnel - McCook Reservoir		500,000
Engineering and Design – McCook Reservoir		1,000,000
Construction Management - McCook Reservoir		2,000,000
Total	$	19,376,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete construction of Main Tunnel Gates – McCook reservoir	$	12,000,000
Complete construction of Main Tunnel Shaft – McCook Reservoir		10,000,000
Continue construction of Stage II Grout – McCook Reservoir		11,000,000
Continue construction of Main Tunnel - McCook Reservoir		4,000,000
Engineering and Design – McCook Reservoir		1,000,000
Construction Management-McCook Reservoir		2,000,000
Total	$	40,000,000

Division: Great Lakes and Ohio River   District: Chicago   McCook and Thornton Reservoirs, IL

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
McCook Reservoir: Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	5,890,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	39,381,000	
Pay 17 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	88,729,000 4,300,00	0
Total McCook Reservoir	$134,000,000 4,300,00	0
Thornton Reservoir: Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	26,617,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary, for the construction of the project, and less credits allowed for prior work per Section 501 of Water Resources Development Act of of 1999.	29,287,000	
Pay approximately 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	14,096,000	2,800,000
Total Thornton Reservoir	$ 70,000,000	$2,800,000
Total Non-Federal	$204,000,000 $7,100,0	00

Division: Great Lakes and Ohio River District: Chicago McCook and Thornton Reservoirs, IL

STATUS OF LOCAL COOPERATION: The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) is the local sponsor for the project. The Project Cooperation Agreement for McCook Reservoir was executed on 10 May 1999, and amended on 10 July 2003. Project Cooperation Agreement for Thornton Reservoir was executed on 18 September 2003 and amended on 30 July 2009. The non-Federal sponsor is expected to make all required payments concurrently with project construction. The current non-Federal cost estimate for the McCook Reservoir is $134,000,000, which includes a cash contribution of $88,729,000 and is an increase of $4,950,000 from the non-Federal cost estimate of $129,050,000 noted in the Project Cooperation Agreement, which included a cash contribution of $99,978,000. The current non-Federal cost estimate for the Thornton Reservoir is $70,000,000, which includes a cash contribution of $14,096,000 and is a decrease of $2,000,000 from the non-Federal cost estimate of $73,000,000 noted in the Project Cooperation Agreement, which included a cash contribution of $14,600,000.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $614,000,000 is an increase of $44,000,000 from the latest estimate ($570,000,000) presented to Congress (FY 2010). This change is due to price levels and inflation adjustments and post contract award adjustments.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Public and Agency review of final Environmental Impact Statement and the Special Reevaluation Report (EIS/SRR) for the McCook Reservoir project was completed in December 1998 and the Record of Decision (ROD) was signed on May 5, 1999. The Thornton Reservoir Environmental Assessment and Finding of No Significant Impact were signed in June 2001 and December 2001 respectively. The Thornton Reservoir Limited Reevaluation Report was completed in July 2003.

OTHER INFORMATION: Funds to initiate PED were appropriated in FY 1988. Funds to initiate construction were appropriated in FY 1994. WRDA 2007, Section 5157 authorized reimbursement to the sponsor for Thornton Reservoir. The scheduled completion date is the same as the latest presented to Congress (FY 2010), "To Be Determined".

SEPARABLE ELEMENT: McCook Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$ 402,000,000
Non-Federal Cost		134,000,000
Cash Contributions	88,729,000	
Other Costs	45,271,000	
Total Estimated Project Cost		$ 536,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 8.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.8 to 1 at 7 percent

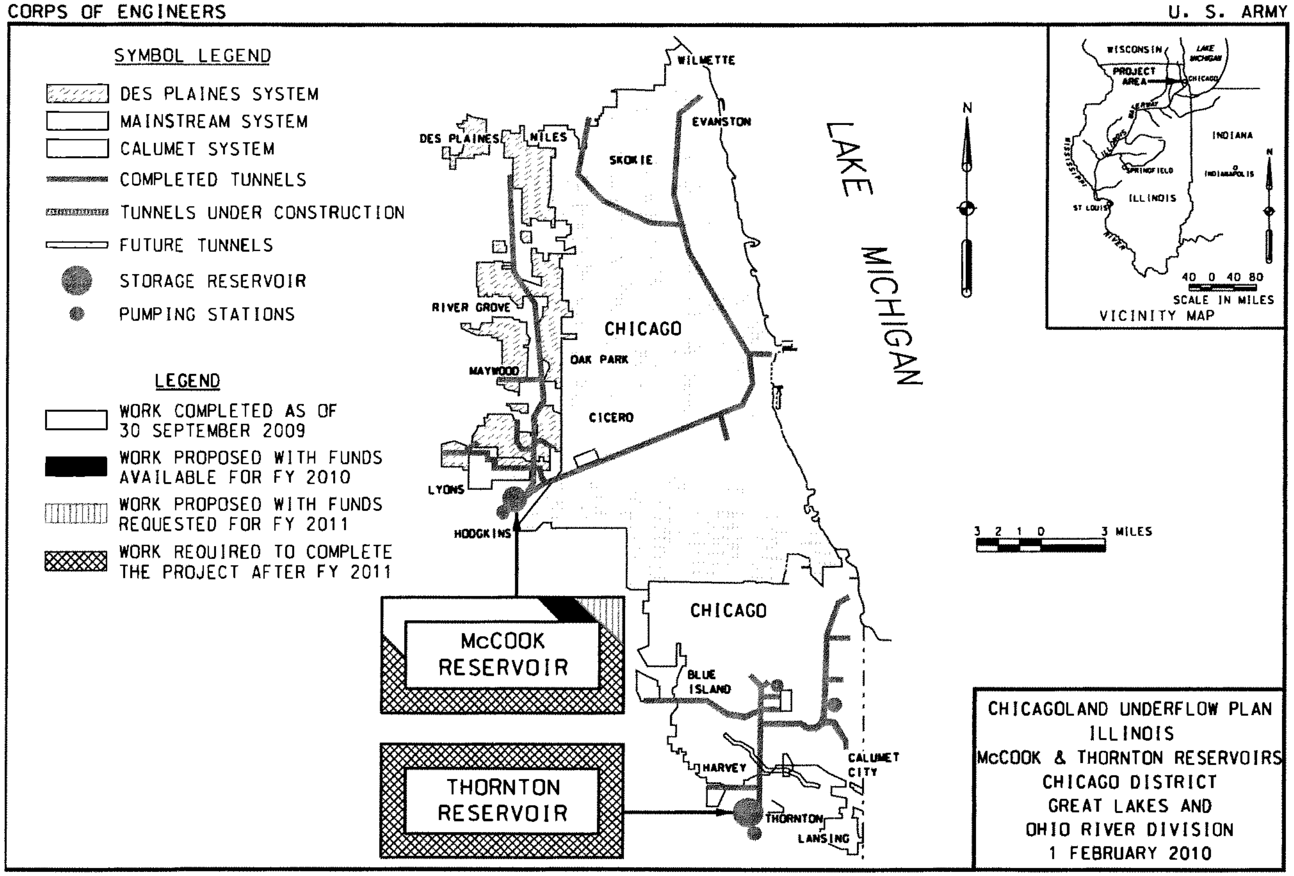
SEPARABLE ELEMENT: Thornton Reservoir, Illinois

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$212,000,000
Non-Federal Cost		70,000,000
Cash Contributions	14,096,000	
Other Costs	55,904,000	
Total Estimated Project Cost		$282,000,000

REMAINING BENEFIT-REMAINING COST RATIO: 2.9 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.


CORPS OF ENGINEERS
U. S. ARMY
SYMBOL LEGEND
DES PLAINES SYSTEM
MAINSTREAM SYSTEM
CALUMET SYSTEM
COMPLETED TUNNELS
TUNNELS UNDER CONSTRUCTION
FUTURE TUNNELS
STORAGE RESERVOIR
PUMPING STATIONS
LEGEND
WORK COMPLETED AS OF 30 SEPTEMBER 2009
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
WILMETTE
EVANSTON
DES PLAINES
NILES
SKOKIE
LAKE MICHIGAN
N
CHICAGO
RIVER GROVE
OAK PARK
MAYWOOD
CICERO
LYONS
HODGKINS
3 2 1 0 3 MILES
McCOOK RESERVOIR
CHICAGO
BLUE ISLAND
HARVEY
CALUMET CITY
THORNTON
LANSING
THORNTON RESERVOIR
WISCONSIN
LAKE MICHIGAN
PROJECT AREA
CHICAGO
INDIANA
INDIANAPOLIS
SPRINGFIELD
ILLINOIS
ST LOUIS
MISSISSIPPI
RIVER
40 0 40 80
SCALE IN MILES
VICINITY MAP
CHICAGOLAND UNDERFLOW PLAN
ILLINOIS
McCOOK & THORNTON RESERVOIRS
CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 FEBRUARY 2010

APPROPRIATION TITLE: Construction- F&CSDR

PROJECT: Presque Isle Peninsula, Pennsylvania (Permanent) (Continuing)

LOCATION: Presque Isle Peninsula is located in the city of Erie, Erie County, Pennsylvania, on the south shore of Lake Erie 78 miles southwest of Buffalo, New York and about 102 miles northeast of Cleveland, Ohio.

DESCRIPTION: The initial construction at Presque Isle State Park consisted of a system of 55 rubblemound breakwaters located offshore along the lakeward length of Presque Isle Peninsula and placement of approximately 560,000 tons of sand. Each breakwater is 150 feet long with a 350 foot gap between structures. The initial construction was completed in November 1992, but in order to maintain sand quantities, annual nourishment is required for 50 years following the initial project construction. The annual sand nourishment is currently on year 17 of 50.

AUTHORIZATION: Water Resources Development Act of 1986 (Public Law 99-662)

REMAINING BENEFIT-REMAINING COST RATIO: 12.33 to 1 at 7%

TOTAL BENEFIT-COST RATIO: 3.33 to 1 at 4.625%

INITIAL BENEFIT-COST RATIO: 2.53 to 1 at 8-7/8 percent (FY1986)

BASIS OF BENEFIT-COST RATIO: Benefits are based on a limited re-evaluation report dated April 1986.

Division: Great Lakes and Ohio River District: Buffalo Presque Isle, Pennsylvania

Completion
SUMMARIZED FINANCIAL DATA:
Schedule

Estimated Federal Cost	$ 56,000,000
Programmed Construction	$ 56,000,000
Unprogrammed Construction	0
Estimated Non-Federal Cost	$ 56,000,000
Programmed Construction	$ 56,000,000
Cash Contributions	$ 14,000,000
Other Costs	0

offshore
Presque Isle
of approximately
sand fill.

Estimated Non-Federal Cost
Facilities indicating mitigation
Unprogrammed Construction

Cash Contributions	$ 42,000,000
Other Costs	0

Total Estimated Programmed Construction Cost	$ 56,000,000
Total Estimated Unprogrammed Construction Cost	0
Total Estimated Project Cost	$ 112,000,000

Status (1 JAN 2010)	Pct Compl	Physical
Initial Construction	100	Nov 1992
Periodic Nourishment	36	
Entire Project	36	TBD

Initial Construction:
The initial construction at Presque Isle State Park consisted of a system of 55 rubblemound breakwaters located along the lakeward length of Peninsula and placement 560,000 tons of beach

Division: Great Lakes and Ohio River District: Buffalo Presque Isle, Pennsylvania

SUMMARIZED FINANCIAL DATA: (Continued)

Allocations to 30 September 2007	$6,704,036
Allocations for FY 2008	$672,000
Allocations for FY 2009	$933,000
Allocations for FY 2010	$945,000
ARRA Allocations for FY 2009	$0
Conference Allowance for FY 2010	$945,000
Allocations through FY 2010	$9,254,036
Allocation Requested for FY2011	$1,000,000
Programmed Balance to Complete after FY 2011	TBD
Unprogrammed Balance to Complete after FY 2011	TBD

JUSTIFICATION: When the need for annual sand nourishment is not met, erosion of the shoreline occurs. Continued erosion will potentially lead to breaching of the Peninsula, increasing the wave climate in Presque Isle Bay, and impacting the navigation users of Erie Harbor. Damage to habitat critical to the breeding of the endangered Piping Plover and other species has already occurred. Damage to park infrastructure will occur next, leading to loss of roadways and a handicapped access area.

The annual benefits identified in the Design Memorandum updated to current price levels are as follows:

Annual Benefits	Amount
Decreased Maintenance Cost	$167,000
Structural Damage Prevented	$7,000
Land Loss Prevention	$21,000
Decreased Dredging Costs	$452,900
Decreased Nourishment Cost	$3,959,300
Total $	4,607,200

FISCAL YEAR 2010: The current amount will be applied as follows:

Place sand (Annual Nourishment)	$850,000
Planning, Engineering, Design and Monitoring	$95,000
Total $945,000	

FISCAL YEAR 2011: The requested amount will be applied as follows:

Place sand (Annual Nourishment)	$ 850,000
Planning, Engineering, Design and Monitoring	$ 150,000
Total $	1,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

The non-Federal sponsor has agreed to make all required payments concurrently with project construction and 50% of its share of periodic nourishment costs within the life of the project.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay one-half of the separable costs allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	$ 56,000,000	$ 106,400
Total Non-Federal Costs	$ 56,000,000	$ 106,400

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and, for general navigation, reimburse its share of construction costs within a period of 30 years following completion of construction.

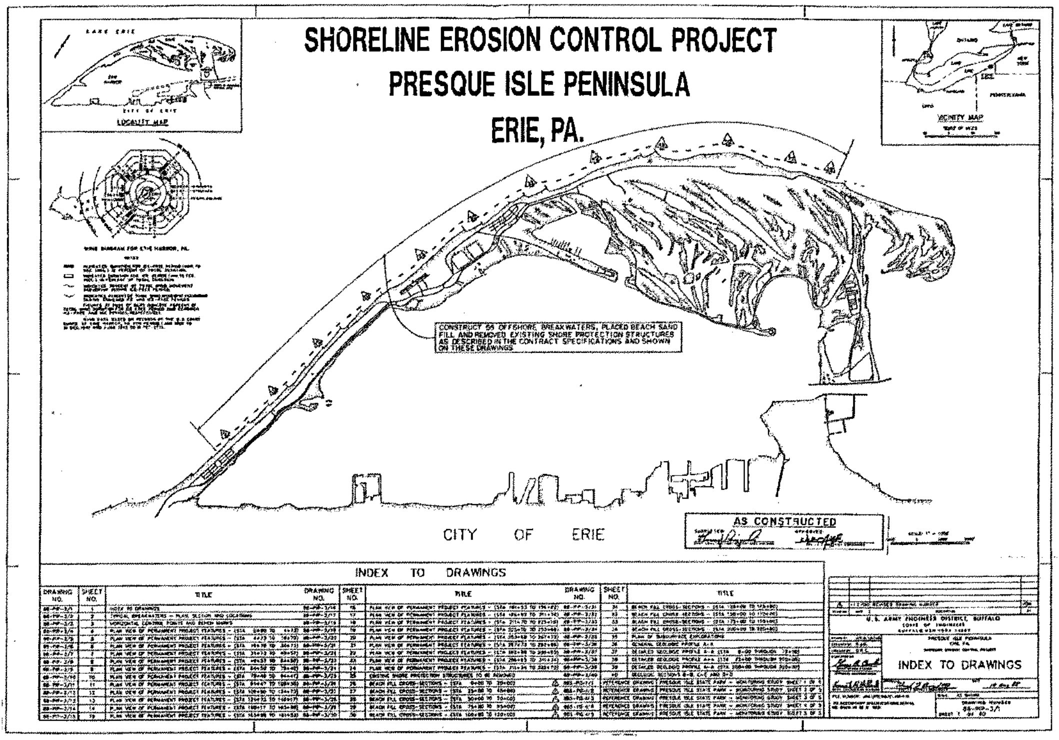
Note: After approval by the ASA (CW), local credit based on ability to pay (Section 103 (m) of the Water Resources Development Act of 1986, as amended,) or general credit for prior work (Section 104 of the Water Resources Development Act of 1986, as amended or Section 215 of the Flood Control Act of 1968) may not be used to offset required 5 percent cash contributions.

STATUS OF LOCAL COOPERATION: Pennsylvania Department of Conservation and Natural Resources (DCNR) serves as the non-Federal sponsor. A Local Cooperation Agreement (LCA) is in place with the non-Federal sponsor to match 50% of any Federal funds received for the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate is the same as the last cost estimate at $112,000,000.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with USEPA on 13 March 1981. The provisions of Section 404 of the Clean Water Act were met by the Public Notice issued on 9 October 1979, a Section 404(b)(1) Evaluation dated 21 December 1979, and a Section 401 Water Quality Certificate issued by the Commonwealth of Pennsylvania dated 8 August 1988. The Record of Decision which completed the NEPA process was signed by the Director of Civil Works on 2 November 1988.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1989.


SHORELINE EROSION CONTROL PROJECT
PRESQUE ISLE PENINSULA
ERIE, PA.
LAKE ERIE
CITY OF ERIE
LOCALITY MAP
VICINITY MAP
WIND DIAGRAM FOR ERIE HARBOR, PA.
CONSTRUCT 55 OFFSHORE BREAKWATERS, PLACED BEACH SAND FILL AND REMOVED EXISTING SHORE PROTECTION STRUCTURES AS DESCRIBED IN THE CONTRACT SPECIFICATIONS AND SHOWN ON THESE DRAWINGS
AS CONSTRUCTED
CITY OF ERIE
INDEX TO DRAWINGS
DRAWING NO.
SHEET NO.
TITLE
U.S. ARMY ENGINEER DISTRICT, BUFFALO
INDEX TO DRAWINGS

APPROPRIATION TITLE: Construction – Dam Safety Assurance, Major Rehabilitation

PROJECT: Wolf Creek Dam Safety Major Rehabilitation, Cumberland River, Kentucky (Continuing)

LOCATION: Wolf Creek Dam is on the Cumberland River at mile 460.9 in south central Kentucky near Jamestown, Kentucky.

DESCRIPTION: Wolf Creek Dam impounds Lake Cumberland, which is the Corps largest storage capacity reservoir east of the Mississippi River. Seepage problems currently threaten the stability of the dam. The Major Rehabilitation Evaluation Report dated July 11, 2005 was prepared in accordance with EP 1130-2-500 and evaluates several alternatives to improve the long term reliability of the dam by using a reliability analysis based on an analytical model built upon historical instrumentation data. From this analysis, the recommended alternative, which is also the National Economic Development alternative, is a new concrete diaphragm wall constructed using the secant pile method and supplemented with grouting. This new wall will start immediately upstream of the right most concrete monoliths and run the length of the embankment into the right abutment. The final approval of the Major Rehabilitation Evaluation Report was made July 25, 2005.

AUTHORIZATION: The Wolf Creek project was authorized by the Flood Control Act approved June 28, 1938 (Public Law No. 761, 75th Congress, 3d session).

REMAINING BENEFIT-REMAINING COST RATIO: 6.4 at 7.0 percent.

TOTAL BENEFIT-COST RATIO: 6.4 at 7.0 percent.

INITIAL BENEFIT-COST RATIO: 7.1 at 5 3/8 percent (FY 2005).

BASIS OF BENEFIT COST RATIO: Benefits are from the latest available evaluation approved in July 2005 at FY05 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$584,000,000
Programmed Construction	$584,000,000	
Total Estimated Project Cost		$584,000,000

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	38	Dec 2012

PHYSICAL DATA

Concrete Cutoff Wall and Foundation Grouting	4170' long x 350' max. depth

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	52,900,000	1/	
Allocation for FY 2008	53,234,000		
Allocation for FY 2009	69,547,000	2/	
Allocation for FY 2009 - Recovery Act	18,000,000		
Conference Allowance for FY 2010	116,206,000		
Allocation for FY 2010	116,206,000		
Allocations through FY 2010	309,887,000		54
Allocation Requested for FY 2011	134,000,000		77
Programmed Balance to Complete after FY 2011	140,113,000		
Unprogrammed Balance to Complete after FY 2011	0		

1/ $8,900,000 funded from Dam Safety and Seepage/Stability Correction Program.
2/ Reflects $15M reprogrammed from Center Hill Dam Safety Major Rehabilitation project.

JUSTIFICATION: Worsening, chronic seepage problems originating from 1940's foundation construction methods currently threaten the stability of Wolf Creek Dam. Review of foundation construction data indicate the problems are due to the karst geology of the site characterized by an extensive interconnected network of solution channels in the limestone foundation. If the 55-year old dam should fail, loss of life is expected to exceed one-hundred lives. Inundation damages in the Nashville area alone are expected to exceed two billion dollars.

FISCAL YEAR 2009 - Recovery Act: The current amount is being applied as follows:

Construct Protective Concrete Embankment Wall in Technique Areas 1 and 2	$ 4,200,000
Construct Protective Concrete Embankment Wall in Critical Areas 1 and 2	8,800,000
Construct Barrier Wall in Technique Areas 1 and 2	5,000,000
Total	$18,000,000

FISCAL YEAR 2010: The allocated amount will be applied as follows:

Continue Cutoff Wall Contract	$ 109,206,000
Planning, Engineering, and Design	3,200,000
Construction Management	3,800,000
Total	$ 116,206,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Cutoff Wall Contract	$ 125,900,000
Planning, Engineering, and Design	3,800,000
Construction Management	4,300,000
Total	$ 134,000,000

STATUS OF LOCAL COOPERATION: The project is designed as a reliability-based improvement. There are no anticipated efficiency benefits. The project will require full initial federal funding. There are two classes of users that may be required to share in the final cost of this project, the water supply and hydropower customers. There are ten water supply users on Lake Cumberland, mostly small cities. There are no current water supply agreements. Any future water supply agreements will include their share of these project costs. The hydropower from Wolf Creek is marketed through the Southeastern Power Administration (SEPA). SEPA will repay their share of the costs by periodic direct payment to the U.S. Treasury.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $584,000,000 is an increase of $800,000 from the latest estimate ($583,200,000) presented to Congress (FY 2009). The change includes the following items.

Item	Amount
Price Level Updating and Inflation	$ 800,000
Total	$ 800,000

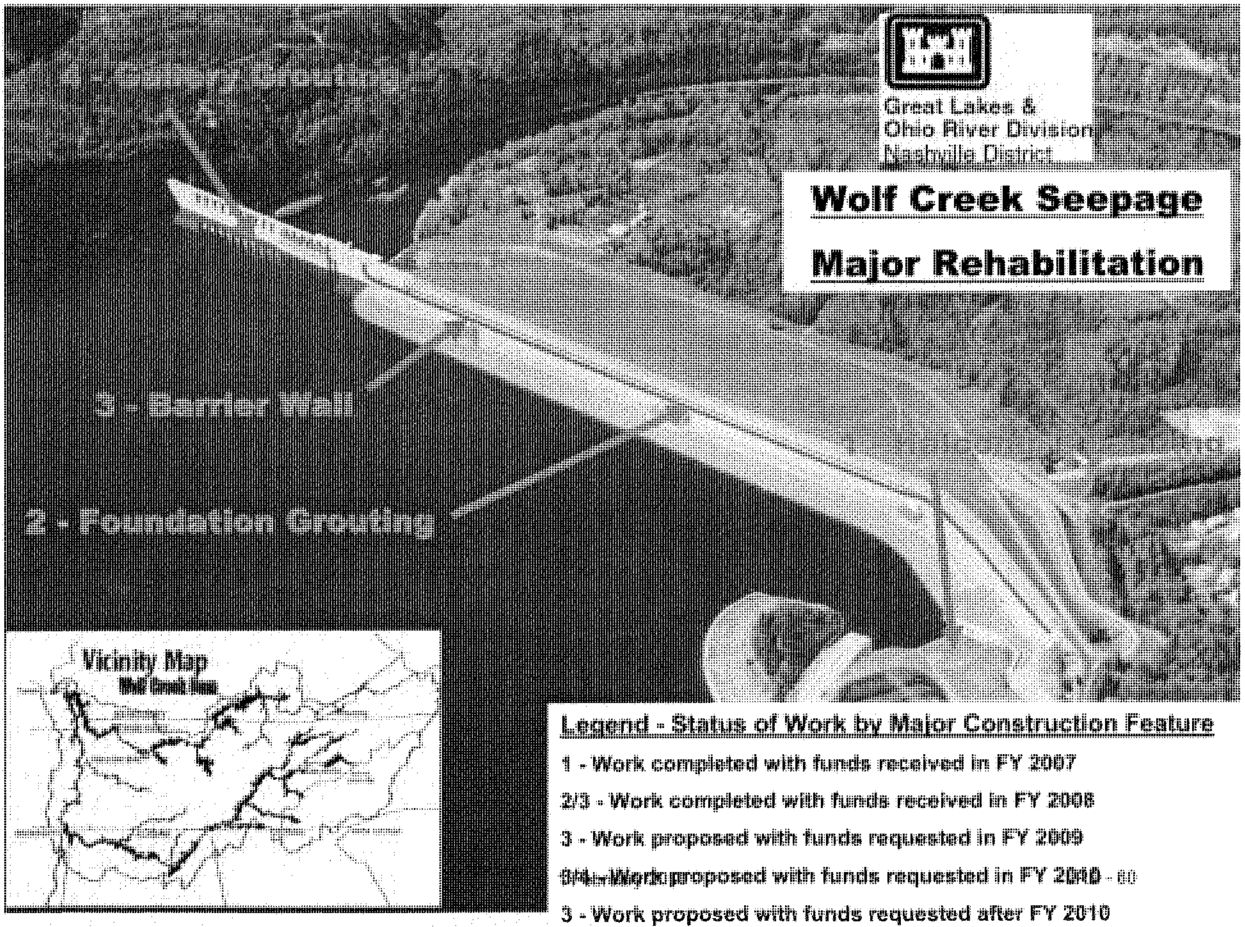
STATUS OF ENVIRONMENTAL ASSESSMENT: An Environmental Assessment and signed Finding of No Significant Impact (FONSI) were included in the Major Rehabilitation Report approved July 14, 2005 by the Great Lakes and Ohio River Division and July 25, 2005 by HQUSACE. Wolf Creek Dam / Lake Cumberland Emergency Measures in Response to Seepage Final Environmental Impact Statement was circulated to the public in December 2007. Final comments and responses are being resolved with US Fish and Wildlife Service and a Record of Decision has been drafted.

OTHER INFORMATION: None

Great Lakes &
Ohio River Division
Nashville District

Wolf Creek Seepage

Major Rehabilitation



Legend - Status of Work by Major Construction Feature

1 - Work completed with funds received in FY 2007

2/3 - Work completed with funds received in FY 2008

3 - Work proposed with funds requested in FY 2009

3/4 - Work proposed with funds requested in FY 2010 - 60

3 - Work proposed with funds requested after FY 2010

NAVIGATION

INVESTIGATIONS

RECONNAISSANCE PHASE STUDY

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost $ $ $ $ $	Allocation Prior to FY 2010	Allocation Allocation FY 2010	Tentative FY 2011	Additional to Complete After FY 2011
Great Lakes Navigational System, Michigan, Illinois, Indiana, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin	8,946,700 8,205,7	00	341,000 400,0	00	TBD

Detroit District

The Great Lakes/St. Lawrence Seaway navigation system is an international waterway that provides a minimum 25.5' safe draft for nearly 2,300 miles. The system extends from the Atlantic Ocean throughout the Great Lakes to Duluth, MN. The navigation system is operated and maintained by both the United States and Canadian Governments through the St. Lawrence Seaway Development Corporation (USDOT), the St. Lawrence Seaway Management Corporation (Transport Canada), and the U.S. Army Corps of Engineers. The system contributes significantly to the North American economy in both the United States and Canada. Section 456 of the Water Resources Development Act of 1999 directed the Corps to review the feasibility of improving commercial navigation on the Great Lakes navigation system, including locks, dams, harbors, ports, channels, and other related features, in consultation with the St. Lawrence Seaway Development Corporation (SLSDC). A Supplemental Reconnaissance Report, submitted to USACE-LRD for review in June 2009, was completed in response to the 1999 authorization to determine the Federal interest in any enhancements to the overall navigation system, along with justifiable localized improvements, that would position the system to better accommodate future trends in shipping and intermodal transport of goods throughout the system. The funds for FY 2010 are being used to finalize the Supplemental Reconnaissance Report and the reconnaissance phase. FY11 funding would be used to respond to public comments on the Reconnaissance report, identify non-Federal Sponsors, formulate the scope of potential follow-on feasibility activities, and negotiate and execute Feasibility Cost Share Agreements (FCSAs) with non-Federal sponsors to initiate feasibility phase focusing on Great Lake harbor and channel improvements.

Total Estimated Study Cost	TBD
Reconnaissance Phase (Federal)	$ 8,946,700
Feasibility Phase (Federal)	TBD
Feasibility Phase (Non-Federal)	TBD

It is anticipated that the reconnaissance phase will be complete in May 2011. It is anticipated that the feasibility study would be completed in September 2014.

APPROPRIATIONS TITLE: Investigations, Fiscal Year 2011 Divis ion: Great Lakes and Ohio River

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Upper Ohio Navigation Study, PA	14,990,000	4,634,483	2,460,000	4,529,338	1,255,000	749,000	1,362,179

Pittsburgh District

The Upper Ohio Navigation Study, PA, Emsworth, Dashields and Montgomery (EDM) Locks and Dams are the uppermost lock and dam structures on the Ohio River and are located at river miles 6.2, 13.3 and 31.7, respectively below the "Point" in Pittsburgh, PA. All three have dual lock chambers, 110'x600' and 56'x300', which are the smallest capacity chambers of the Ohio River navigation system. All three facilities are 70+ years of age and exhibit significant signs of structural and operational degradation increasing the risk of failure which would halt navigation for up to one year. Navigation interests in the Pittsburgh area recognize the possibility of structural and/or operational failures at the Emsworth, Dashields and Montgomery Locks may soon reach unacceptable levels of risk. They also support the efficient continuation of a feasibility level study to determine the most cost effective and safe means to continue navigation at these three facilities. The Upper Ohio River, PA, Feasibility Study was part of the recently completed Ohio River Mainstem Systems Study (ORMSS) scope, which includes an overall System Investment Plan (SIP). The SIP evaluated the need for additional site-specific improvements beyond the J.T. Myers and Greenup Locks Improvements projects. The Upper Ohio River, PA, Site-Specific Feasibility Study is the highest priority of the ORMSS SIP. The SIP and the associated Environmental Cumulative Effects Assessment (CEA) recommendations will be incorporated into the Upper Ohio Navigation, PA Feasibility Study.

FY 2010 funds are being used to complete risk and reliability analysis, economic model modifications, economic and environmental data acquisition and analysis, without project condition definition, with project alternative development and analysis, finalize Alternate Formulation Briefing (AFB) documentation, perform Agency Technical Review on AFB document, conduct AFB, prepare draft Feasibility report and complete NEPA documentation.

FY 2011 funds will be used for an Agency Technical Review, Public Review an Independent External Peer Review will be conducted on the draft Feasibility report and NEPA documentation, draft feasibility report finalized and submitted for final reviews and approval.

The Upper Ohio Navigation Study, PA, is a site-specific feasibility study recommendation of the Ohio River Mainstem System Study, System Investment Plan. The feasibility study schedule is being reevaluated based on prior year funding limitations. Subject to efficient funding being received the study is expected to be completed in FY 2012 with submittal of a Chief's Report in November 2011. Pre-construction, Engineering, and Design could start in FY 2013.

Study Authority: Resolution adapted by the Committee on Public Works for the U.S Senate dated 16 May 1955 and 20 March 1982, and by the U.S. House of Representatives Committee on Public Works and Transportation dated 11 March 1982.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Locks and Dams (Replacement) (Dam Safety Assurance) (Navigation)

PROJECT: Emsworth Locks and Dams, Ohio River, Pennsylvania (Static Instability Correction) (Continuing)

LOCATION: Emsworth Locks and Dams are located on the Ohio River immediately downstream of the City of Pittsburgh in Allegheny County, Pennsylvania. The project includes two dams, one on either side of an island (Neville). The main channel dam and locks are located at river mile 6.2 and the back channel dam is located at river mile 6.4. The project creates the navigation pool for the City of Pittsburgh. The pool includes the uppermost 6.2 miles of the Ohio River, the lower 11.2 miles of the Monongahela River, and the lower 6.7 miles of the Allegheny River.

DESCRIPTION: The structural components of the Emsworth Locks and Dams are the oldest of any project on the Ohio River, dating back to 1919-1922 when Emsworth was constructed. The proposed work is directed to deficiencies with the dam gates, dam operating equipment and machinery, and the scour protection downstream of the dams. Potential work at the Emsworth Locks is being evaluated separately and is not part of this project. The main channel dam consists of eight 100 foot vertical lift gates and a 34 foot fixed crest weir. The back channel dam consists of five 100 foot vertical lift gates and a tainter-style gate commonly referred to as a "Sidney Gate". The proposed project includes replacement of the dam gates, gate hoisting machinery, an electrical power and distribution system, and a scour protection system. The project also includes work to the dam service bridge and localized areas of dam concrete deterioration.

AUTHORIZATION: Rivers and Harbors Act, dated July 1918

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 TO 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.1 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.8 TO 1 AT 5 5/8 percent (FY 2004)

BASIS OF BENEFIT-COST RATIO: "EMSWORTH LOCKS AND DAMS, OHIO RIVER, MAJOR REHABILITATION EVALUATION REPORT" dated March 2001 is the basis for the initial benefit-cost ratio. The price level was March 2001. The initial rate is the rate for FY04 when CG funds were first expended. The total benefit-cost ratio would be 1.1 to 1 at 7% based on the current approved cost estimate.

SUMMARIZED FINANCIAL DATA	ACCM PCT OF EST FED COST
Estimated Federal Cost	160,000,000
Programmed Construction	160,000,000
Unprogrammed Construction	0
Estimated Non-Federal Cost	0
Programmed Construction	0
Cash Contributions	0
Other Costs	0
Total Estimated Programmed Construction Cost	160,000,000
Total Estimated Unprogrammed Construction Cost	0
Total Estimated Project Cost	160,000,000

STATUS (1 JAN 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire project	64.7%	2014

PHYSICAL DATA
13 Vertical Lift Gates
Emergency Bulkheads and Hoists
Vertical Lift Gate Machinery
Erosion Protection
Integral concrete repairs
Rehabilitation of Service Bridges

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ARRA FUNDS	ACCUM PCT OF EST FED COST
Allocations thru 30 September 2009	64,633,500	38,833,500	17,335,000	75.5 /1
Conference Allowance for FY 2010	0	23,619,000		
Allocation for FY 2010	725,000	22,894,000		
Allocations through FY 2010	76,398,745	50,687,255	17,335,000	90.3
Allocation Requested for FY 2011	5,750,000	5,750,000		97.5
Programmed Balance to Complete after FY 2011	2,039,000	2,039,000		
Unprogrammed Balance to Complete after FY 2011	0	0		

/1 FY 2009 Cost Share with Inland Water Trust Fund was not in effect from 1 Oct 08 thru 27 Oct 09. Obligations during this period were $25,560,248. ARRA funds are not subject to the 50/50 cost share.

JUSTIFICATION: The dams are presently in an exigent situation and categorized as Dam Safety Action Class 1 – urgent and compelling. There are 10-foot deep scour holes and 65 percent of the erosion protection is missing downstream of the dams. Failure of any of the thirteen lift gates would likely cause a portion of the stilling basin to fail and possibly undermine the dam. There is presently a 74 percent likelihood of failure of any of the dam gates. The systems are proven to be unreliable due to multiple failures within the past four years. Over 239 million tons of commodities are transported by barge annually on the Ohio River. The annual tonnage through Emsworth is approximately 24 million tons with the principle commodity being coal destined for electric generating plants and the nation's largest coke plant. The total benefits of traffic through Emsworth reflect a yearly savings of $300,000,000 over other modes of transportation. Gate failure during low flow conditions could lead to the loss of the Pittsburgh Pool halting navigation. Gate failure during high flow conditions may cause upstream flooding or stilling basin and dam failure halting navigation. If the Emsworth pool is lost, two major facilities dependent on river transportation are impacted – the US Steel Clairton Works, the largest coke plant in the US and the Bailey/Enlow Fork Complex owned by Consol Energy, the largest underground coal mine in the US. Disruption in coal supply and transportation would also impact steel plants and coal-fired electric power plants. The impact of the loss of Emsworth pool on the local economy and other communities would be substantial. Approximately 11,700 jobs are directly at risk due to loss of navigation and disruption to services and material. The loss in wages alone would range from $1,500,000 to $2,200,000 per day. The project is cost-effective and in accordance with current Administration policy for navigation.

FISCAL YEAR 2010:

Description	Amount
EDC and S&A for the main channel gate rehab, main channel lift gate supply, back channel abutments stabilization and service bridges design	3,000,000
Main channel dam gate and permanent scour protection contract	22,000,000
Total	25,000,000

FISCAL YEAR 2011:

Description	Amount
EDC and S&A for the main channel gate rehab and permanent scour protection, back channel abutment stabilization, back channel service bridge and back channel permanent scour protection.	4,000,000
Main channel service bridge plans & specifications contract	500,000
Main channel service bridge contract	7,000,000
Total	11,500,000

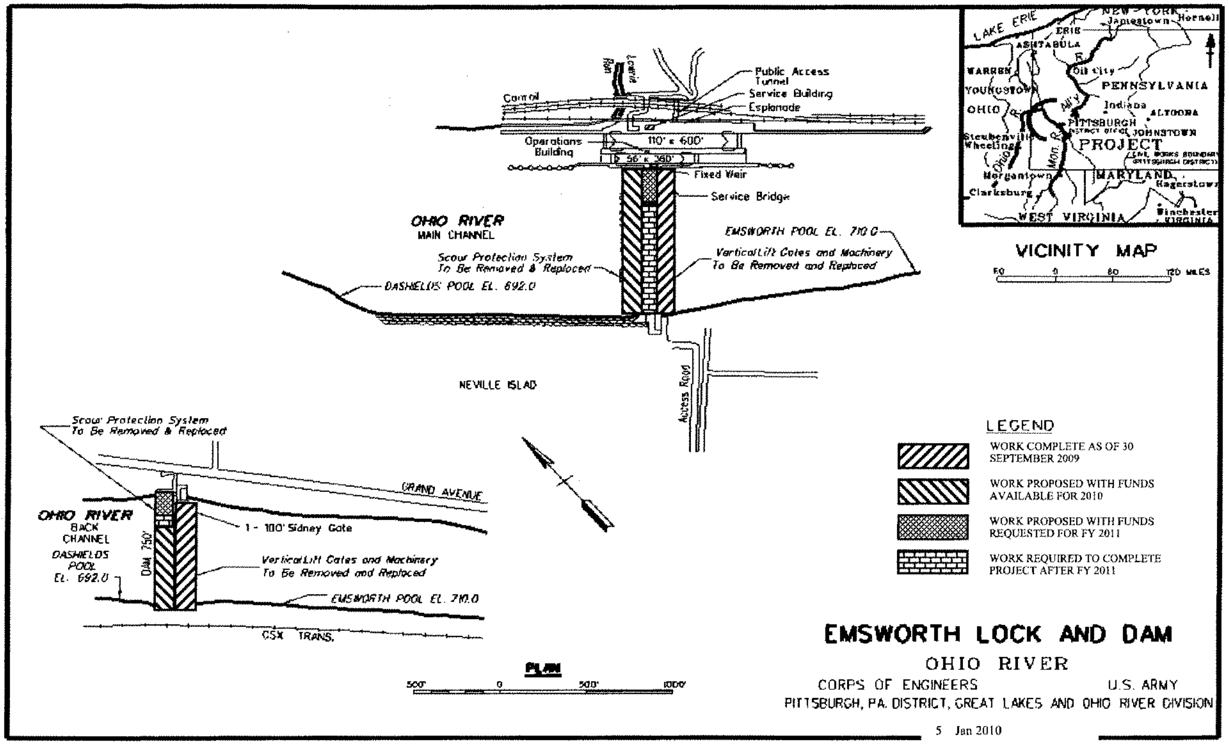
NON-FEDERAL COST: N/A

STATUS OF LOCAL COOPERATION: None Required

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $160,000,000 is the same as last presented to Congress for 2010.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An Environmental Assessment was completed during the Rehabilitation Evaluation study, and the Finding of No Significant Impacts (FONSI) was signed on 12 July 2001.

OTHER INFORMATION: Project is high priority. In FY 2005, a total of $3,500,000 of CG "wedge" funds was provided through the Dam Safety and Seepage/Stability Correction program to initiate the Emsworth Locks and Dams Major Rehabilitation Project, PA. The scheduled completion date is 2014.



Division: Great Lakes & Ohio River District: Pittsburgh Emsworth Locks and Dams, Ohio River, PA
1 Febr 2010 LRF 9

APROPRIATION TITLE: Construction – Channel and Harbor (Navigation)

PROJECT: Indiana Harbor and Canal, Confined Disposal Facility, Indiana (Continuing)

LOCATION: The project is located on the southwestern shore of Lake Michigan within the City of East Chicago, Lake County, Indiana, 4-1/2 miles east of the Indiana-Illinois state line and 17 miles from downtown Chicago, Illinois.

DESCRIPTION: Indiana Harbor and Canal (IHC) is an authorized Federal navigation project with an entrance channel and outer harbor protected by breakwaters, and an inner harbor which includes the Indiana Harbor Canal and its two branches, the Lake George Branch, which extends west for a distance of 6,800 feet, and the Calumet River Branch which extends south for about 2 miles where it joins the Grand Calumet River. A 4.8 million cubic yards capacity Confined Disposal Facility (CDF) will be constructed on the 164 acres of land adjacent to the Lake George Branch of the IHC, formerly occupied by an oil refinery owned by Sinclair Refinery Company, and subsequently acquired by Energy Cooperative Incorporated (ECI). The ECI property, which currently has open Resource Conservation and Recovery Act (RCRA) status, was transferred to the current local sponsor, the East Chicago Waterway Management District (ECWMD) in 1994. Use of this site for the CDF is contingent upon the construction of specific RCRA closure and corrective action features that will be integral aspects of the CDF construction. The elements of the CDF include construction of dikes; a hydraulic gradient control system which includes monitoring and extraction wells and a subsurface cutoff wall; an on-site effluent treatment plant; administrative and maintenance facilities; and air monitoring.

AUTHORIZATION: River and Harbor Acts of 1910 and 1960. The authority for eliminating non-federal cost sharing for the remainder of construction is Section 6011 of H.R. 1268, Emergency Supplemental Appropriations Act for Defense, The Global War on Terror, and Tsunami Relief, 2005.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.0 to 1 at 6.875 percent.

BASIS OF BENEFIT COST RATIO: Benefits are from the Final Comprehensive Management Plan, Indiana Harbor and Canal Maintenance Dredging and Disposal Activities, dated January 1999 at October 1997 price levels.

Division: Great Lakes and Ohio River District: Chicago Indiana Harbor CDF, IN

SUMMARIZED FINANCIAL DATA	FED.		ACCUM PCT. OF EST COST
Estimated Total Appropriation Requirement		$136,000,000	
Future Non-Federal Reimbursement	$	0	
Estimated Federal Cost (Ultimate)		$136,000,000	
Estimated Non-Federal Cost	$	44,000,000	
Cash Contributions		44,000,000	
Total Estimated Programmed Project Cost		$ 180,000,000	
Total Estimated Unprogrammed Project Cost		0	
Total Estimated Project Cost		$ 180,000,000	
Allocations to 30 September 2007		$ 53,604,000	
Allocations for FY 2008		17,776,000	
Allocations for FY 2009		8,390,000	
Conference Allowance for FY 2010		13,500,000	
Recovery Act Allocations as of 31 Dec 2009		0	
Allocation for FY 2010		13,500,000	
Total Allocations through FY 2010		93,270,000	69
Allocation Requested for FY 2011		8,000,000	74
Programmed Balance to Complete After FY 2011		34,730,000	
Unprogrammed Balance to Complete after FY 2011		0	

STATUS: (1 JAN 2010)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	60	To Be Determined

PHYSICAL DATA

Dikes	13,000 lin. ft.
RCRA Cap	948,000 cu. yds.
Gradient Controls	1
Effluent Treatment Plant	1
Cutoff Wall	341,715 sq. ft.

JUSTIFICATION: Indiana Harbor receives over 14.9 million tons of waterborne commerce, fourth in Great Lakes in tonnage. The ArcelorMittal Steel Company, U.S. Gypsum Company, Safety-Kleen Company and the British Petroleum Company are the primary users of the Indiana Harbor and Canal. ArcelorMittal Steel, the largest steel manufacturer in the United States, is the largest user of the harbor.

There is an estimated 1.6 million cubic yards backlog of maintenance dredging at the Indiana Harbor and Canal. The resulting inadequate channel depths are causing deep-draft vessels to plow through sediments at various locations, pushing them into berthing areas and other areas located along dock faces outside of

JUSTIFICATION (continued): the Federal channel. In addition, ships come into the harbor loaded at less than optimum vessel drafts. Use of various docks and double handling of bulk commodities is restricted as a result of inadequate channel depths. These problems are causing increased transportation costs of waterborne commerce at this navigation project, estimated at $15,000,000 annually. These additional costs are estimated to increase to $21,700,000 by the year 2031. Ships trading into Indiana Harbor forfeit as much as 16 inches of draft, or more than 4,300 tons of cargo each arrival. The harbor mainly supports steel and petroleum industries, including the largest refinery in the Midwest and one of the largest steel plants in the U.S., both of which have had extensive additional investment recently. Due to the proximity of extensive rail and interstate roads, the location is prime for expansion and industrial interest has been shown over the past 2 years.

The Indiana Harbor and Canal navigation project and the Grand Calumet River region have been identified as one of the 43 Great Lakes Areas of Concern by the International Joint Commission primarily due to the quality of the watercourse sediments. Polluted sediments are continually put into suspension due to propeller action of commercial ships. Major storm events flush polluted sediments from the harbor into Lake Michigan. It is estimated that between 100,000 and 200,000 cubic yards of polluted sediment are being discharged from the harbor into the lake annually. The annual sediment load to the lake contains an estimated 67,000 pounds of chromium, 100,000 pounds of lead and 420 pounds of PCB's. Adverse impacts can be detected and measured for a distance of more than 5 miles from the harbor entrance, affecting water supply intakes, sport fishing and recreational areas. Dredging will remove approximately 4.8 million cubic yards of contaminated sediments from the ambient environment in Northwest Indiana and will partially mitigate the currently unrestricted migration of these polluted materials into the near shore areas of Lake Michigan.

The Indiana Harbor and Canal navigation project has not been dredged since 1972. The United States Environmental Protection Agency determined that disposal in Lake Michigan was no longer acceptable due to the polluted character of the dredged material, nor are they suitable for unconfined upland disposal or beneficial use. Therefore, a confined disposal facility must be constructed before maintenance dredging of the Federal channel can commence.

The total average annual benefits are $15,678,000 all for navigation.

FISCAL YEAR 2010: The current amount is being applied as follows:

Complete Construction of South Cut-Off Wall	$ 100,000
Complete Construction of Interim Ground Water Gradient Control	1,300,000
Complete Construction of Dikes III	6,400,000
Initiate Construction of South End Features	3,000,000
Engineering and Design	1,700,000
Construction Management	1,000,000
Total	$ 13,500,000

FISCAL YEAR 2011: The requested amount is being applied as follows:

Complete Construction of South End Features	$ 6,500,000
Engineering and Design	1,000,000
Construction Management	500,000
Total	$ 8,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts contained in the Water Resources Development Act of 1986 and the FY 2005 Emergency Supplemental Appropriations Act, the non-Federal sponsor must comply with the requirements listed below.

Con Requirements of Local Cooperation	Payment During struction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Pay 25 percent of the costs allocated to general navigation facilities during construction until enactment of the FY 2005 Emergency Supplemental Appropriations Act.	$10,935,000	
Pay 100 percent of the construction costs allocated to the local service facilities (berthing areas) and 100 percent of operations and maintenance costs allocated to the local service facilities	$33,065,000	$400,000
Total Non-Federal	$44,000,000	$400,000

The non-Federal sponsor has agreed to make all payments required concurrently with construction and to make all required reimbursements within a period of 30 years following completion of construction.

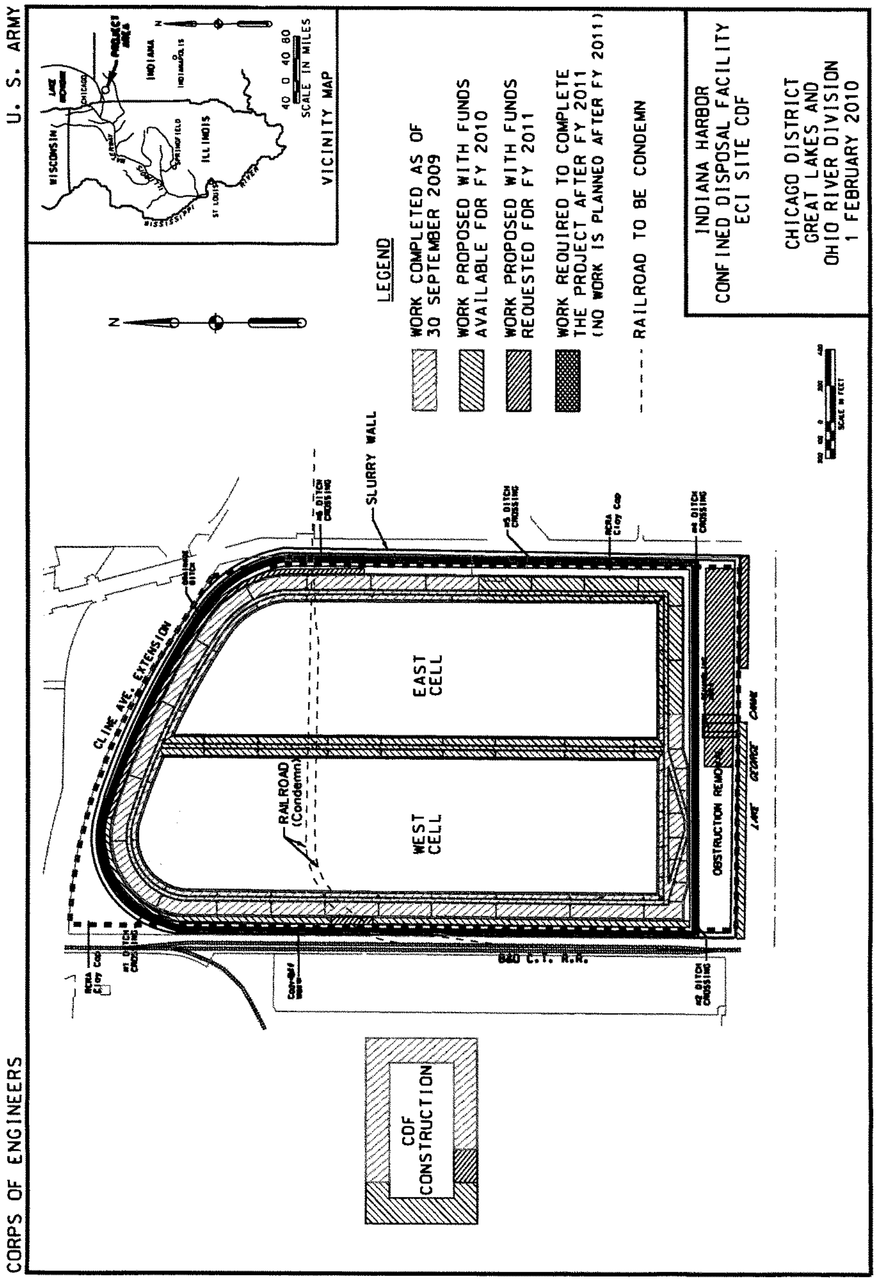
STATUS OF LOCAL COOPERATION: The East Chicago Waterway Management District is the local sponsor. The Project Cooperation Agreement was executed on 7 August 2000. Project was changed to 100% Federal funding in May 2005. A revised PCA is being negotiated based on the language changing this project to 100% Federal funded.

The non-Federal cost estimate of $44,000,000 includes a cash contribution of $37,700,000.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate is $136,000,000.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Public and Agency review of final Environmental Impact Statement and the Comprehensive Management Plan were completed in November 1998. The Record of Decision for the FEIS for the entire project was signed February 2, 1999.

OTHER INFORMATION: Initial construction funds were appropriated in FY 1999. The Comprehensive Management Plan, Indiana Harbor and Canal Maintenance Dredging and Disposal Activities, dated January 1999, was completed with Operation and Maintenance funds. The East Chicago Waterway Management District, the local project sponsor, has received letters of intent from the Ispat Inland Steel and LTV Steel companies (now combined under ArcelorMittal) to participate with the local sponsor as users of the confined disposal facility project. The scheduled completion date is the same as the latest presented to Congress (FY 2010), "To Be Determined".



1 Febr 2010

LR 5

APPROPRIATION TITLE: Construction - Locks & Dams (Navigation)

PROJECT: Kentucky Lock and Dam, Tennessee River, Kentucky (Continuing)

LOCATION: The project is located on the Tennessee River at Mile 22.4 near Grand Rivers, Kentucky.

DESCRIPTION: The modernization of the existing facility will include the addition of a 110-foot x 1200-foot lock landward and adjacent to the existing 110-foot x 600-foot lock, and the relocation of an existing railroad, highway, and powerhouse access road. The railroad and highway will be relocated downstream of the new lock's lower gates and will require the construction of new bridges across the river. The powerhouse access road will be relocated from the east bank to the west bank and will require the construction of a new ramp.

AUTHORIZATION: The Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.7 at 7.0 percent.

TOTAL BENEFIT-COST RATIO: 2.5 at 7.0 percent.

INITIAL BENEFIT-COST RATIO: 1.8 at 8 percent (FY 1994).

BASIS OF BENEFIT COST RATIO: Benefits are based on the Limited Reevaluation Report approved in November 1995 and costs are based on a 2003 update of the Innovated Design/Cost Reduction Studies completed in June 1995.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$713,400,000
Construction General	$356,700,000	
Inland Waterways Trust Fund	$356,700,000	
Total Estimated Project Cost		$713,400,000

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	43	TBD

PHYSICAL DATA

Lock Chamber (New)	110 ft. x 1200 ft.
Bridges	
Railroad (New)	3100 ft.
Highway (New)	3100 ft.

SUMMARIZED FINANCIAL DATA (Continued)

	CONSTRUCTION		INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2007		102,806,960	102,806,960	
Allocation for FY 2008		25,584,000	25,584,000	
Allocation for FY 2009		7,303,000	7,303,000	
Allocation for FY2009 & FY2010 – Recovery Act		58,000,000		
Conference Allowance for FY 2010		472,500	472,500	
Allocation for FY 2010		TBD	TBD	
Allocations through FY 2010		TBD	TBD	
Allocation Requested for FY 2011		1,434,000	1,434,000	
Programmed Balance to Complete after FY 2011	TBD	TBD		
Unprogrammed Balance to Complete after FY 2011		0	0	

JUSTIFICATION: The existing 110-foot x 600-foot Kentucky Lock is too small to handle a modern 15-barge tow without two lockages. This greatly increases the processing time resulting in Kentucky Lock having one of the highest average delay times on the inland waterway system. Delays at the lock averaged over 5.7 hours per tow in 2005. System traffic is expected to grow annually from the 40.5 million tons recorded in 2005 to an estimated 77 million tons in 2050 resulting in a 38.4 hour average delay per tow. The addition of a new 1200-foot lock will greatly reduce these delays and generate $71 million (FY03 dollars) in average annual benefits to the nation as a result of reduced cost to transport commodities through the system.

FISCAL YEAR 2010: The allocated amount will be applied as follows:

Construction Management	945,000
Total	945,000

FISCAL YEAR 2009 & 2010 – Recovery Act: The current amount will be applied as follows:

Continue Highway/Railroad Superstructure Contract	7,600,000
Upstream Lock Monoliths Construction	46,500,000
Planning, Engineering and Design	3,900,000
Total	58,000,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Construction Management (Hwy/RR Contract)	2,868,000
Total	2,868,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost for the project will be derived from the Inland Waterways Trust Fund.

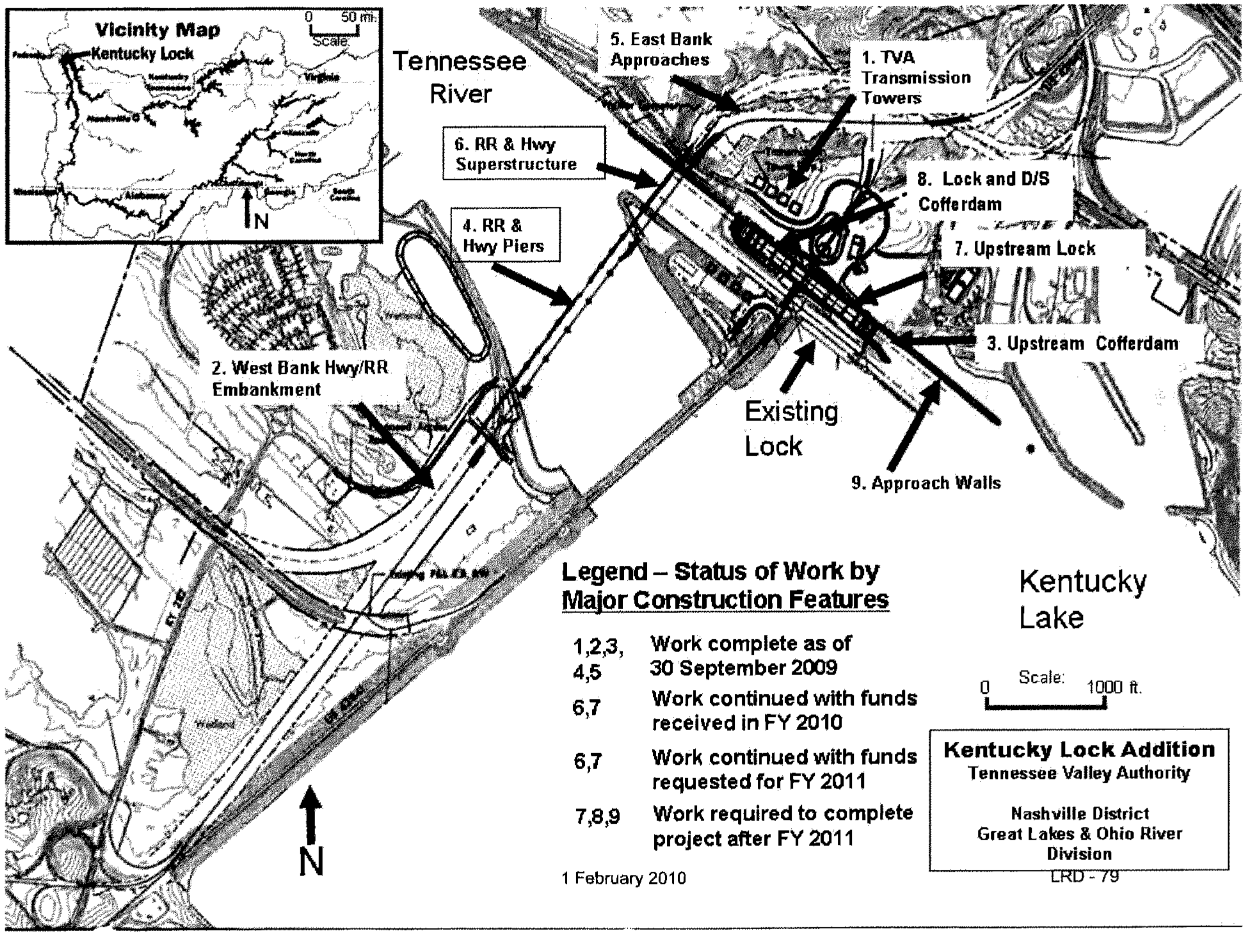
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $713,400,000 is a decrease of $20,800,000 from the latest estimate ($734,200,000) presented to Congress (FY 2010). The change includes the following items.

Item		Amount
Price Level Updating and Inflation		- $ 20,800,000
	Total	- $ 20,800,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement was included in the Final Feasibility Report and the Record of Decision was signed on March 26, 1998. A supplemental Environmental Impact Statement to address relocation feature changes and design refinements identified subsequent to the original report and Environmental Impact Statement was completed in 2001 and the Record of Decision was signed on July 20, 2001.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design were appropriated in FY 1993. Funds to initiate construction were appropriated in FY 1998.


Vicinity Map
Kentucky Lock
0 50 mi.
Scale
N
Tennessee River
5. East Bank Approaches
1. TVA Transmission Towers
6. RR & Hwy Superstructure
8. Lock and D/S Cofferdam
4. RR & Hwy Piers
7. Upstream Lock
3. Upstream Cofferdam
2. West Bank Hwy/RR Embankment
Existing Lock
9. Approach Walls
Legend – Status of Work by Major Construction Features
1,2,3, 4,5 Work complete as of 30 September 2009
6,7 Work continued with funds received in FY 2010
6,7 Work continued with funds requested for FY 2011
7,8,9 Work required to complete project after FY 2011
1 February 2010
Kentucky Lake
Scale: 0 1000 ft.
Kentucky Lock Addition
Tennessee Valley Authority
Nashville District
Great Lakes & Ohio River Division
LRD - 79
N

APPROPRIATION TITLE: Construction – Locks and Dams (Navigation)

PROJECT: Locks and Dams 2, 3 and 4, Monongahela River, Pennsylvania (Continuing)

LOCATION: These three Navigation facilities are located on the lower portion of the Monongahela River near the city of Pittsburgh, Pennsylvania. They are part of the Allegheny-Monongahela system and are located in Allegheny, Washington, and Westmoreland Counties. Measured from the Point in Pittsburgh, Locks and Dam 2 (Braddock) is at river mile 11.2, Locks and Dam 3 (Elizabeth) is at river mile 23.8, and Locks and Dam 4 (Charleroi) is at river mile 41.5. Six other navigation facilities situated upstream of Locks and Dam 4 provide a navigable waterway extending to Fairmont, West Virginia. At the Point in Pittsburgh, the Monongahela and Allegheny Rivers join to form the Ohio River.

DESCRIPTION: Existing Locks and Dams 2, 3, and 4 are the last of the old and undersized locks on the Monongahela River system and have components which have been in service for nearly 100 years. The existing Braddock facility consists of a main lock with chamber dimensions of 110 by 720 feet, an auxiliary lock with chamber dimensions of 56 by 360 feet, and a 748-foot fixed-crest dam. The existing Elizabeth facility consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a 670-foot fixed-crest dam. The existing Charleroi facility consists of locks with chamber dimensions of 56 by 720 feet and 56 by 360 feet and a gated dam consisting of five 84-foot gated sections and a 43-foot fixed weir section. The authorized projects consist of a new gated dam and a rehabilitated auxiliary chamber floodway bulkhead structure at Braddock; new twin 84 by 720 foot locks and below-dam scour protection at Charleroi; raising pool 2 by a nominal 5 feet and lowering pool 3 by a nominal 3.2 feet; removal of Locks and Dam 3; channel dredging; relocations; and bank stabilization. Construction began in FY 1995 with the upgrade of the Locks 2 auxiliary chamber floodway bulkhead and relocations. Replacement of the dam at Braddock began in 1999 and is complete. Only one operational lock remains at Charleroi L/D 4. Efforts are now focused on the new twin locks at Charleroi and remaining pool 2 relocations. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1992

REMAINING BENEFIT-REMAINING COST RATIO: 4.0 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 6.7 to 1 at 7 3/4 percent (FY 1995)

BASIS OF BENEFIT-COST RATIO: The initial Benefit-Cost ratio is based upon the benefits and costs listed in the Feasibility Report dated December 1991. The initial rate is the FY 1995 rate when CG funds were first expended.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
			Renovation and extension of Locks 2 Upper Guard wall	100	Jan 98
Estimated Federal Cost	845,000,000	/1	Bulkhead Structure L/D 2	100	Mar 96
Programmed Construction	845,000,000		Braddock Dam	100	Jul 04
Unprogrammed Construction	0		Remove L/D 3	0	To be determined
			Raise and Lower Pool	0	To be determined
Estimated Non-Federal Cost	0		Public Relocations	50	To be determined
Total Estimated Programmed Construction Cost	845,000,000		Charleroi River Chamber Lock	19	To be determined
Total Estimated Unprogrammed Construction Cost	0		Charleroi Scour Protection	0	To be determined
Total Estimated Project Cost	845,000,000		Charleroi Land Chamber Lock	0	To be determined
			Entire project	61 /2	To be determined

/1 Project cost being updated. Unapproved fully funded estimate is $1,700,000,000. This project will require a Post Authorization Change Report when the allocated amount approaches the current estimated 902 Authorization Limit of $1,100,000,000. Through 17 December 2009, the project has been allocated $576,000,000, which is $656,000,000 below the 902 Authorization Limit.

/2 Project completion percentage is based on the $845,000,000 estimate and the $516,000,000 received thru 17 December 2009.

	GENERAL APPNS	INLAND WATERWAYS TRUST FUNDS	ARRA FUNDS	ACCUM PCT OF EST FED COST
Allocations to 30 September 2009	230,460,000	230,618,000	55,198,800	/1
Conference Allocation for FY 2010	3,105,000	3,105,000		
Allocation for FY 2010	0	0		
Allocations through FY 2010	230,460,000	230,618,000	55,198,800	61.1%
Allocation Requested for FY 2011	1,000,000	1,000,000		61.3% /2
Programmed Balance to Complete after FY 2011	163,440,600	163,282,600		
Unprogrammed Balance to Complete after FY 2011	0	0		

/1 Includes $12,542,300 of PED funds. ARRA funds are not subject to the 50/50 cost share.

/2 FY11 capability is $112,000,000.

JUSTIFICATION: The major risks associated with these facilities are their deteriorated structural condition and lock capacity. These risks are becoming increasingly severe as the facilities age and deteriorate. The extreme structural deterioration of Locks and Dam 3 and Locks 4 is of paramount concern. Replacement of Lock 4 and removal of Dam 3 are necessary because major repairs and rehabilitation will not prevent structural failure. There is a significant probability of structural failure and loss of navigation on the Monongahela River. The highest risks are at Elizabeth L/D 3 and at Charleroi L/D 4. Dam 3 has been classified as a DSAC I navigation dam and has previously shown signs of active failure. O&M funds were used in FY 2007 and FY 2008 to perform emergency stabilization work on Dam 3 that will serve as a band-aid repair to allow the facility to operate for the next 5-10 years. At Charleroi, there is only one operational lock that is over 75 years old and in poor condition. The Charleroi Dam was classified as a DSAC II dam in 2009. The District is focusing resources on completing the new Charleroi River Chamber. The continued viability of the Lower Monongahela River navigation system is vital to the economic well being of southwestern Pennsylvania, northeastern West Virginia, and the nation. Locks and Dam 2, 3, and 4 cumulatively provide over 14,000 direct jobs in the region. Loss of transportation on this river would have an extremely detrimental effect to the regional and local economy. Average annual benefits at 7 percent are as follows:

Annual Benefits	Amount
Commercial Navigation	39,729,000
Advanced replacement of shore side facilities	2,000,000
Eliminated cost of help boats	100,000
Flood damage reduction	500,000
Normal O&M reduction	1,000,000
Maintenance Savings	176,703,000
Total	220,032,000

FISCAL YEAR 2010: FY 10 funding for this project is severely constrained by the IWTF. Work to be accomplished in FY 10 includes continuing prior year fully funded fabrication and relocation contracts, investigating and executing relocations, and continued design efforts for the next Charleroi Locks contract.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Description	Amount
Continue prior year relocations	$1,000,000
Cultural Resource Mitigation	1,000,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resource Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund. Funds received under the ARRA of 2009 are not required to have a matching cost share from the IWTF.

Construction of this project requires modification to privately owned shore side facilities and submarine utility crossings, which were all constructed under Department of the Army permits pursuant to Section 10 of the Rivers and Harbors Act, approved March 3, 1899. The estimated cost to owners for adapting these facilities to new project conditions was $111,000,000 in October 1992 dollars.

STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The most recent fully funded estimate for this project was $845,000,000. The costs are being updated in FY2010 and it is estimated that the revised fully funded project estimate will be approximately $1,700,000,000 (October 2009 dollars). The increase from $845,000,000 to the unapproved estimate of $1,700,000,000 reflects three major factors 1) funding significantly below the project capability level 2) IWTF funding constraints beginning in FY2008 and extending indefinitely and 3) design modifications to assumptions made during the feasibility study in December 1991.

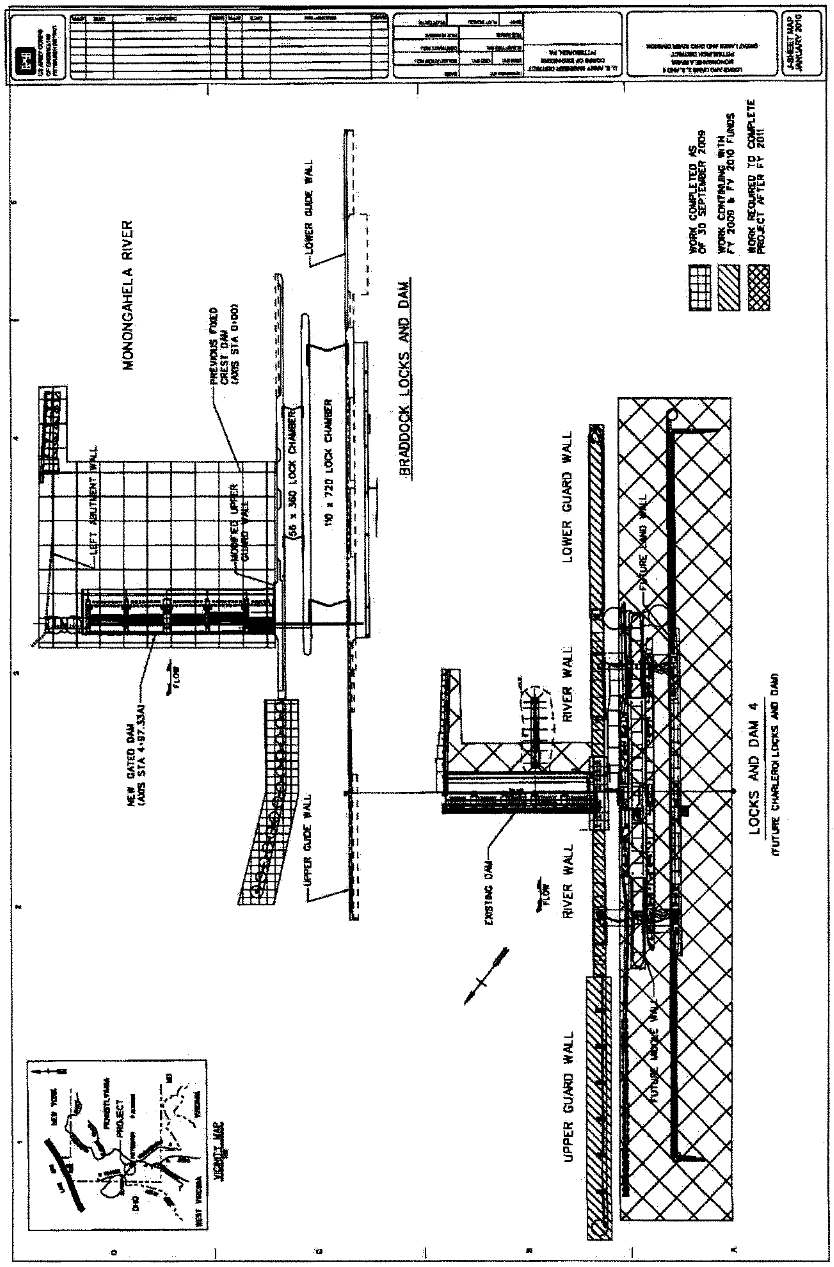
STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The final Environmental Impact Statement was filed with the Environmental Protection Agency on January 28, 1992. The Director of Civil Works signed the Record of Decision on December 17, 1992. A Supplemental Environmental Impact Statement on Project Disposal and various other Environmental Assessments, all resulting in Findings of No Significant Impact have been completed pursuant to the National Environmental Policy Act. Changes since the last supplemental have been captured through the issuance of Public Notices under the Clean Water Act.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were first appropriated in FY 1992. Funds to initiate construction were first appropriated in FY 1995. The original project was to be completed in FY 2004. Annual shortfalls in project funding have extended the project's schedule and escalated the estimated project cost to $1,700,000,000 (unapproved). Further, due to IWTF funding constraints and the limited use of the continuing contracts clause, funding at the capability level is unexpected for the next several fiscal years, thereby extending project completion even further into the 2030s. Extensions of this project schedule directly affect the Operations and Maintenance funding needs on the Monongahela River.

Lock 3 (Elizabeth) is highly unreliable. Dam 3 has been classified as a DSAC 1 navigation dam and has previously shown signs of active failure. "Band-Aid" repairs were completed in FY08 to the most critical portions of the 104 year old dam in an effort to extend the dam's life an additional 5-10 years. Failure of Dam 3 would result in loss of navigation in pool 3, adverse impacts to multiple water intakes, and a potential failure of the only operational lock at Charleroi.

Lock 4 (Charleroi) has only one highly unreliable 74 year old lock chamber. Charleroi's dam was rated as a DSAC II navigation dam in 2009. Loss of downstream pool, due to failure of Dam 3, would seriously affect the stability of the existing lock 4. Lock 4 has a 56 foot wide chamber which is a safety hazard to the navigation industry as well as a bottleneck to efficient navigation on the lower Monongahela River.

Funding the project at a capability level is highly unrealistic with the current funding constraints related to the IWTF. Therefore, the actual scheduled project completion date cannot be determined until the funding stream is identified.



Division: Great Lakes and Ohio River District: Pittsburgh Locks and Dams 2, 3, and 4, Monongahela River, PA

1 February 2010 LRD - 84

APPROPRIATION TITLE: Construction - Navigation (Major Rehabilitation)

PROJECT: Markland Locks and Dam, Kentucky (Major Rehabilitation) - Continuing

LOCATION: The project is located on the Ohio River at mile 531.5 in Gallatin County, Kentucky, approximately 58 river miles west of Cincinnati, Ohio. The project was placed in operation in June 1964.

DESCRIPTION: The existing dam consists of 12 operating tainter gates and is approximately 1,395 feet long. A portion of the dam is a licensed hydroelectric facility operated by the CINERGY Corporation and rated at 81,000 KVA. There are two locks at the project: the main chamber is 1,200 feet X 110 feet and the auxiliary chamber measures 600 feet X 110 feet. The project is a unit of the U.S. Inland Waterway navigation system on the Ohio River and is ranked 12th in the nation based on tons of commodities transiting the lock. The project consists of construction of a miter gate assembly pier, fabrication and installation of new miter gates in the 1200 foot main chamber and fabrication and installation of new culvert valves for the main chamber.

AUTHORIZATION: The Rivers and Harbor Act of 1953

REMAINING BENEFIT-COST RATIO: 12.5 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.1 to 1 at 7 Percent

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 5 3/8 percent (FY 2008)

BASIS OF BENEFIT COST RATIO: Markland Locks and Dam Major Rehabilitation Report, dated March 2000, and updated November 2004.

SUMMARIZED FINANCIAL DATA:		
Estimated Federal Cost		35,766,000
General Appropriations	24,811,000	
Inland Waterways Trust Fund	10,955,000	
Estimated Non-Federal Cost		0
Total Estimated Project Cost		35,766,000

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	83	Sep 2011

PHYSICAL DATA

Dam: Operating Gates	12
Length	1,395 ft.
Height	42 ft.
Lock Chamber (Main)	110 X 1,200 ft.
(Aux)	110 X 600 ft.

Division: Great Lakes and Ohio River District: Louisville Markland Locks and Dam, Kentucky

SUMMARIZED FINANCIAL DATA (Cont'd)

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	PCT. OF EST. FED. COST
Allocations to 30 September 2007	0	0	
Allocation for FY 2008	4,610,000	4,610,000	
Allocation for FY 2009	10,144,000	0	
Allocation for ARRA thru 31 Dec 2009 1/	7,207,000	0	
Conference Allowance for FY 2010	0	945,000	
Allocation for FY 2010 2/	2,850,000	945,000	
Allocations through FY 2010	24,811,000	5,555,000	85
Allocation Requested for FY 2011	0	5,400,000	100
Programmed Balance to Complete after FY 2011	0	0	
Unprogrammed balance to Complete after FY 2011	0	0	

1/ Includes an anticipated reprogramming action from the project of $920,000 in ARRA funding due to low bids on awarded contracts.
2/ A reprogramming action for 2,850,000 was necessary to expedite planned repairs to miter gates that failed in September 2009.

JUSTIFICATION: The Markland Locks and Dam project consists of an operating dam with 12 tainter gates and a hydroelectric facility and a main 1,200 foot lock chamber with a 600 foot auxiliary chamber. In continuous operation since 1964, the existing lock gates and culvert valves have shown increasing fatigue and stress cracking over the last ten years of documented inspections. Numerous repairs have been accomplished but have only slowed the deterioration of the facility. The risk is very high that a total failure of the lock gates could occur. This would force traffic to pass through the auxiliary lock for an extended period of time causing huge delays and financial impacts to the towing industry. Without this major rehabilitation, the gates and valves will eventually fail with significant adverse impact to the Nation's commerce, Ohio River navigation and operation of the project.

Average annual benefits at 7 percent in 1999 price levels are as follows:

Annual Benefits	Amount
Commercial Navigation	4,196,902
Other	22,011
Total	4,218,913

FISCAL YEAR 2010: The current amount will be applied as follows:

Project Mgmt, Engineering During Construction, and Supervision and Administration	$ 945,000
Miter Gate Fabrication	$ 2,850,000
Total	$ 3,795,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Install Gates	$ 5,400,000
Total	$ 5,400,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund. The Omnibus Appropriations Act, 2009 removes requirement for matching funds from the Inland Waterways Trust Fund for FY09 only. Funds provided under the FY09 American Recovery and Reinvestment Act are also exempt from the Inland Waterways Trust Fund requirement.

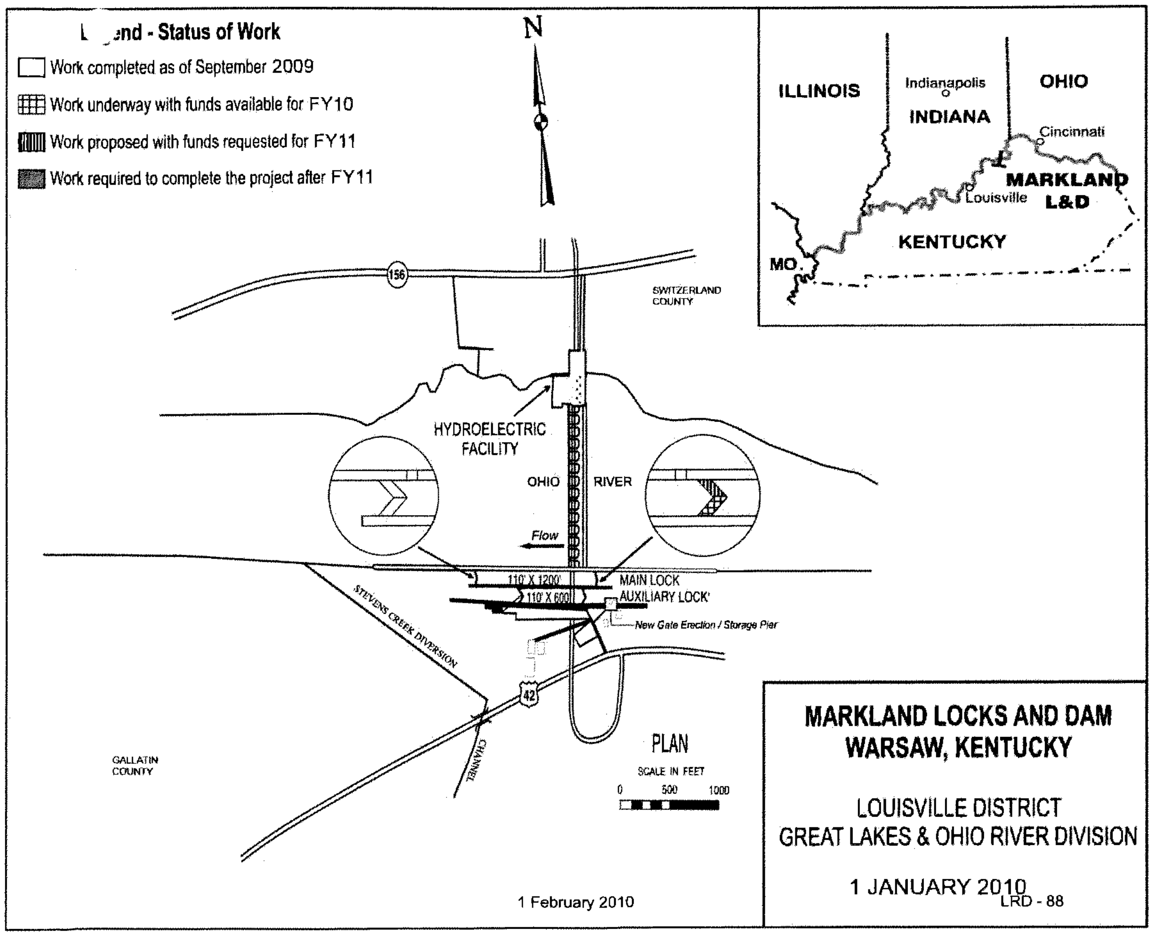
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $35,766,000 is an increase of $2,066,000 from the latest estimate ($33,700,000) presented to Congress (FY 2010) for construction. The change includes the following items:

Item	Amount
Design Changes	$ 1,947,000
Price Escalation	119,000
Total	$ 2,066,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Although the proposed action consists of a repair to an existing operating project, an Environmental Assessment (EA) and a Finding of No Significant Impact (FONSI) were completed in June 2000, in compliance with the requirements of NEPA documentation. An Environmental Impact Statement is not required.

OTHER INFORMATION: Total cost of the project is $35,766,000. The Major Rehabilitation Report for Markland Locks and Dams, Ohio River was approved for the major rehabilitation program by the Chief, Operations Division, Director of Civil Works U. S. Army Corps of Engineers on 7 July 2000.


L_end - Status of Work
Work completed as of September 2009
Work underway with funds available for FY10
Work proposed with funds requested for FY11
Work required to complete the project after FY11
N
156
SWITZERLAND COUNTY
HYDROELECTRIC FACILITY
OHIO RIVER
Flow
110' X 1200'
110' X 600'
MAIN LOCK
AUXILIARY LOCK'
New Gate Erection / Storage Pier
STEVENS CREEK DIVERSION
42
CHANNEL
GALLATIN COUNTY
PLAN
SCALE IN FEET
0 500 1000
1 February 2010
ILLINOIS
Indianapolis
INDIANA
OHIO
Cincinnati
MARKLAND L&D
Louisville
KENTUCKY
MO.
MARKLAND LOCKS AND DAM
WARSAW, KENTUCKY
LOUISVILLE DISTRICT
GREAT LAKES & OHIO RIVER DIVISION
1 JANUARY 2010
LRD - 88

APPROPRIATION TITLE: Construction - Locks and Dams (Navigation)

PROJECT: Olmsted Locks and Dam, Illinois and Kentucky (Continuing)

LOCATION: The project is located in Pulaski County, Illinois, and Ballard County, Kentucky, on the Ohio River near Olmsted, Illinois, approximately 964 miles downstream from Pittsburgh, Pennsylvania.

DESCRIPTION: The project will replace Ohio River Locks and Dams 52 and 53. The new structure will consist of two 110' by 1200' locks adjacent to the Illinois shore and a dam comprised of tainter gates, navigable pass, and a fixed weir. All work is programmed.

AUTHORIZATION: Water Resources Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: 7.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 6.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.7 at 8 3/4 percent (FY 1991).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Olmsted Locks and Dam Post Authorization Change Report, dated May 2008.

SUMMARIZED FINANCIAL DATA	(1	
Estimated Federal Cost		$2,044,000,000
General Appropriations	1,024,453,000	
Inland Waterways Trust Fund	1,019,547,000	
Estimated Non-Federal Cost		0
Total Estimated Project Cost		$ 2,044,000,000

STATUS Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	55	Sep 2018

PHYSICAL DATA

Lock - 110 by 1,200 foot Chambers	2
Dam - Navigable Pass	1,400 ft.
Fixed Weir	561 ft.
Tainter Gates	744 ft.
Acres – Dam	123 acres
Road	21 acres
Disposal Area	114 acres

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2007	$445,305,500	$445,305,500	
Allocation for FY 2008	51,168,000	51,168,000	
Allocation for FY 2009 1/	54,547,000	54,547,000	
Allocation for ARRA thru 31 Dec 2009	4,906,000	0	
Conference Allowance for FY 2010	50,760,500	50,760,500	
Allocation for FY 2010	50,760,500	50,760,500	
Allocations through FY 2010	606,687,000	601,781,000	59
Allocation Requested for FY 2011	68,000,000	68,000,000	66
Programmed Balance to Complete after FY 2011	$349,766,000	$349,766,000	
Unprogrammed Balance to Complete after FY 2011			

1/ $6,000 still remains on hold at USACE.

JUSTIFICATION: The project is in a strategic location on the inland waterway system. Virtually all waterway traffic moving between the Ohio River and tributaries and the Mississippi River and tributaries passes through the project area. Olmsted Locks and Dam will replace existing Ohio River Locks and Dams 52 and 53, which are over 80 years old. Both projects have temporary lock chambers that are inefficient and neither project conforms to current design criteria for structural stability. Commercial navigation in 2008 was 90 million tons through Lock 52 and 78 million tons through Lock 53. Over the last five years, tonnage has been relatively constant, with the 5 year average of 93 million tons through Lock 52 and 83 million tons through Lock 53. The long term (2010-2030) average annual growth rate is projected to be between 0.9 and 1.1 percent. The value of the commodities through the project area in 2005 was estimated at $18.7 billion. Coal comprises approximately 21% of the total tonnage, aggregates 18%, petroleum 11%, grain 13%, iron/steel 15%, chemicals 10% and ores/minerals and other 11%. The projected increases in waterway traffic demands in combination with the limited capacity of the existing locks will result in increased lockage delays, costing the industry $488 million on an annual basis.

The following counties qualify as areas of "substantial and persistent" unemployment: Illinois - Alexander, Johnson, Massac, Pope, Pulaski, and Union; Kentucky - Ballard, Carlisle, Graves, Livingston, and Marshall.

Average annual benefits at 7 percent in 2008 price levels are as follows:

Annual	Benefits	Amount
	Navigation	$ 488,047,325
	Total	$ 488,047,325

FISCAL YEAR 2010: The current amount will be applied as follows:

Continue Dam Construction Contract	$ 93,651,000
Mussel Monitoring	544,000
Planning, Engineering, and Design	1,368,000
Construction Management	5,460,000
Lock Operation during Construction (Hired Labor)	498,000
Total $	101,521,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Dam Construction Contract	$ 127,401,000
Mussel Monitoring	465,000
Planning, Engineering, and Design	1,340,000
Construction Management	6,314,000
Lock Operation during Construction (Hired Labor)	480,000
Total $	136,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50% of the total cost of construction will be derived from the Inland Waterways Trust Fund.

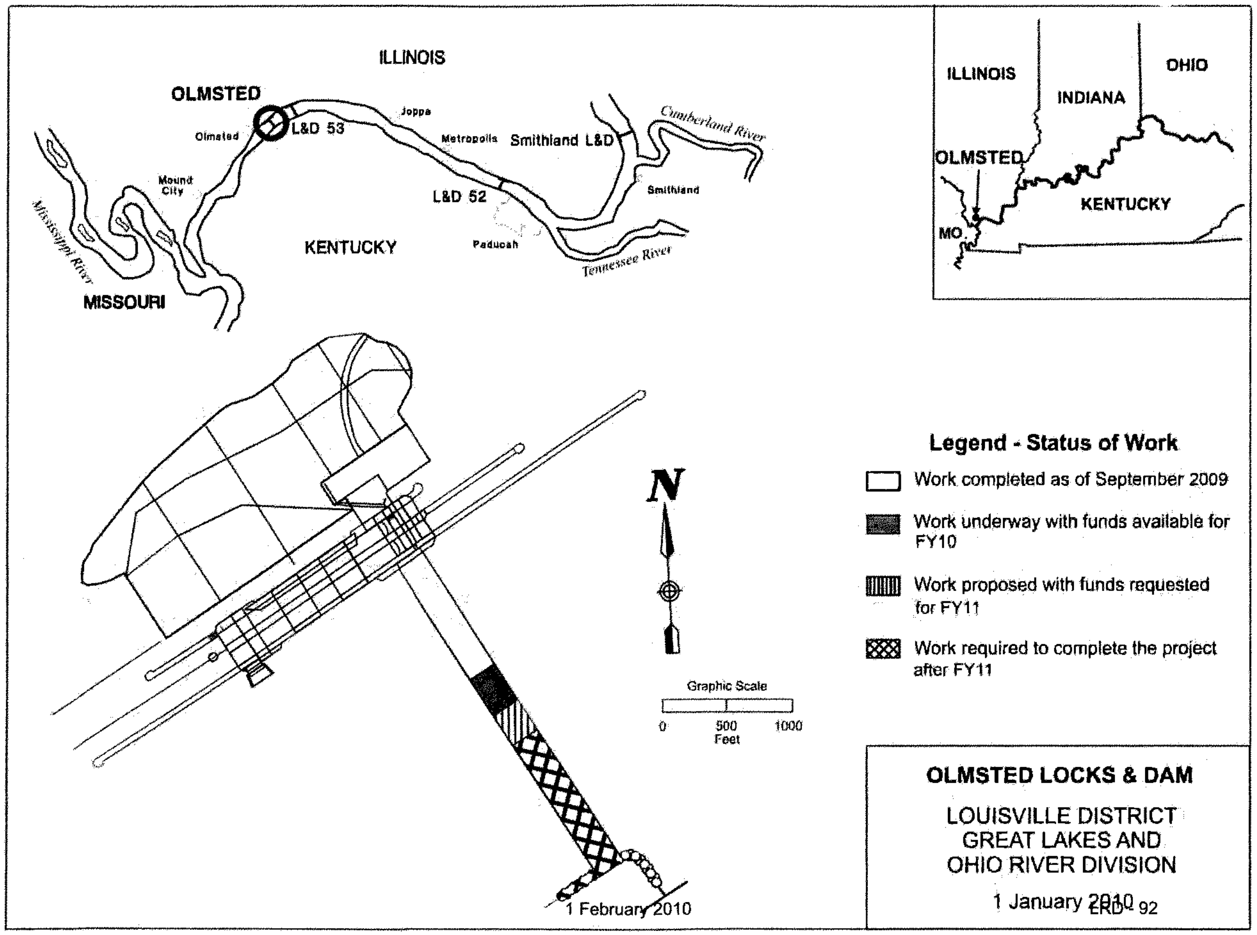
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $2,044,000,000 is a decrease of $80,000,000 from the latest estimate ($2,124,000,000) presented to Congress (FY 2010). The change includes the following item.

Item	Amount
Deflation During Construction	$ 80,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency on April 4, 1986. Due to project changes, a Draft Supplemental EIS was filed in November 1991. The Final Supplement to the EIS was filed on March 26, 1993, and the Record Of Decision was signed on May 5, 1993.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986. Funds to initiate construction were appropriated in FY 1991. The twin 110 x 1200-foot locks were substantially completed in 2005. Construction on the dam was initiated in Jan 2004. Demolition of Locks and Dams 52 and 53 will follow completion of dam construction. The scheduled completion date has changed from the latest presented to Congress (FY 2010) "To Be Determined" to Sep 2018.



Legend - Status of Work

- ☐ Work completed as of September 2009
- ■ Work underway with funds available for FY10
- ▥ Work proposed with funds requested for FY11
- ▩ Work required to complete the project after FY11

OLMSTED LOCKS & DAM

LOUISVILLE DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION
1 January 2010 ERD 92

ENVIRONMENT

INVESTIGATIONS

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	ARRA Allocation as of 31 Dec 2009 $	Tentative Allocation FY 2010 $	Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES								
Indiana Harbor, IN Chicago District (Grand Calumet River Environmental Dredging)	3,225,000	0	0	478,000	0	500,000	300,000	1,947,000

The project area is located in northwest Indiana in the communities of Gary, East Chicago, and Hammond, Indiana. The project area covers 15.4 miles of river and adjacent wetlands, including the Indiana portion of the Grand Calumet River (GCR) with the exception of an area cleaned up by United States Steel, and the portions of the Lake George Canal and the Indiana Harbor Canal that are not part of the federal navigation channel. This project will remove up to 2,000,000 cubic yards of sediments that are highly contaminated with PAHs, metals, and PCB's (below the Toxic Substance Control Act level), causing it to be designated an Area of Concern (AOC) in the Great Lakes Water Quality Agreement. The GCR fails all fourteen beneficial uses and is ranked as the most impaired of all 43 AOCs. Contaminated sediments discharged from the GCR put the potable water supply for 223,000 people at risk. Modeling the movement of discharged GCR contaminated sediments identified over 900,000 acres along the eastern shore of Lake Michigan where bioaccumulation of contaminants can occur. The project will also isolate any remaining in-situ river contaminants with the placement of an engineered cap that will provide suitable substrate for habitat restoration. The GCR is a high priority area for the Indiana Department of Environment Management and the Indiana Department of Natural Resources, the non-Federal sponsors, the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency. The purpose of this PED phase is to design the recommended alternatives for management of the contaminated sediment including sediment removal, stabilization of embankments, and other features within the Ordinary High Water Mark for the GCR. Contaminated sediment is the primary source of contamination and ecological degradation, and environmental restoration cannot occur without removal or management of the contaminated sediment. The locally preferred plan is likely to be the recommended plan with an estimated total project cost of approximately $150,000,000, over a 20-year construction period. The 20 year construction period is based upon anticipated annual Federal appropriations. PED will ultimately be cost shared at 35% non-Federal, but will be financed through the PED phase at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$4,300,000	Total Estimated Preconstruction Engineering and Design Costs	$4,300,000
Initial Federal Share	3,225,000	Ultimate Federal Share	2,800,000
Initial Non-Federal Share	1,075,000	Ultimate Non-Federal Share	1,500,000

FY 2009 carryover funds are being used to complete work on the Feasibility Study, Environmental Impact Statement in FY 2010. FY 2010 funds will be used to initiate PED. FY 2011 funds will be used to continue work on PED. PED completion date is "To Be Determined".

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Great Lakes and Ohio River Division

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2009 $	ARRA Allocation as of 31 Dec 2009 $	Allocation FY 2010 $	GLRI[1] Allocation FY2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY2011 $
Interbasin Control of Great Lakes-Mississippi River Aquatic Nuisance Species, IL, IN, OH & WI Chicago District	10,000,000	0	287,000	0	269,000	500,000	400,000	8,544,000

[1] Great Lakes Restoration Initiative

The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago River to the Des Plaines River and the Illinois River, which creates a waterway connection between the Lake Michigan Basin and the Mississippi River Basin. The CSSC connects the Great Lakes (GL) and their 121 tributaries to the Mississippi River (MR) and its 852 tributaries, thereby providing a potential pathway for aquatic nuisance species (ANS) to spread across over 30 states and two Canadian provinces. A system of three barriers is partially developed to prevent the migration of ANS, including the Asian carp. These barriers do not protect against the full range of ANS that can use the CSSC to transit between the two basins. In addition, there are other known or suspected aquatic pathways between the Great Lakes and Mississippi River Basins.

A feasibility study is necessary to examine the full range of options and technologies available to prevent the spread of all aquatic nuisance species at all life stages between the GL and MR basins through the CSSC and other aquatic pathways. This study will be thoroughly coordinated with other federal agencies, states, local governments, international organizations and regional stakeholders. The preliminary estimated cost of the feasibility phase is $10,000,000. This study is authorized to be 100 percent Federal.

FY 2010 funds are being used to continue work on the feasibility study as well as further efforts to develop the Technical Committees and stakeholder groups. FY 2011 funds will also be used to continue Feasibility Study efforts which will include more technical efforts including data gap analysis and data collection, and initiation of analyses. The feasibility completion date is "To Be Determined".

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[1] Great Lakes Restoration Initiative

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Davidson County, Mill Creek Watershed, TN Nashville District	1,479,000	1,035,000	253,000	96,000	45,000	50,000	0

Mill Creek is a major tributary of the Cumberland River in southeastern Davidson County and northeastern Williamson County. The Mill Creek watershed is 108 square miles and home to the federally listed endangered Nashville Crayfish. Corrective measures evaluated during the reconnaissance study include floodway evacuation combined with wetland restoration and enhancement. Project would restore 143 acres of wetlands and riparian habitat. The watershed provides habitat for all life cycles of the Nashville crayfish (endangered species) according to a 1989 USF&WS recovery plan. Restoration of the baseflow and connecting with the floodplain would focus flows to provide interstitial spaces for crayfish and other benthic organisms. Outputs to restore the in-stream structure and pool, riffle run, glide; reducing and treating erosion and sedimentation transport improvements; and restore detritus and woody debris with riparian improvements would be developed. The watershed connects and improves 80% of the main tributary's watershed. Three state agencies view it as the most important urban stream with the highest potential for restoration. Mill Creek is integral to a multi-agency regulatory plan developed with USFWS, TDEC, and the Corps as noted in the World Wildlife Federation's Vision for the Tennessee, Cumberland, and Mobile River Basins at Risk (2002). The sponsor is the Metropolitan Government of Nashville and Davidson County. The Feasibility Cost Sharing Agreement was executed on April 24, 2003.

The feasibility report will be completed March 2011 with the issuance of the Division Commanders public notice. The current estimated project cost is $15,000,000 (October 2001 price levels), which includes feasibility, PED, and construction costs. Construction costs, which are estimated at $9,000,000 with a Federal share of $5,850,000 and a non-Federal share of $3,150,000, include riparian restoration, sediment management and control, and wetland creation and enhancement. The benefit to cost ratio is 1.4 to 1 based on an interest rate of 6 1/8 percent. Metropolitan Government of Nashville and Davidson County is ready to sign a design agreement and have funds available to finance the Preconstruction Engineering and Design portion of the design of the project.

FY 2010 funds will be used to continue the feasibility study.
FY 2011 funds will be used to complete the feasibility phase. The estimated cost of the feasibility phase is $2,742,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. A summary of study cost sharing follows:

Total Estimated Study Cost	$2,845,000
Reconnaissance Phase (Federal)	113,000
Feasibility Phase (Federal)	1,366,000
Feasibility Phase (Non-Federal)	1,366,000

The reconnaissance phase was completed in April 2003. The completion date for the feasibility study is March 2011.

CONSTRUCTION

APPROPRIATION TITLE: Construction - (Environmental Mitigation, Restoration and Protection)

PROJECT: Chicago Sanitary & Ship Canal Dispersal Barriers, Illinois (Continuing)

LOCATION: The Dispersal Barriers are near River Mile 296.5 in Romeoville, IL in Cook County.

DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a man-made waterway that connects the Chicago River and Des Plaines River, creating the only continuous waterway connection between the Great Lakes and Mississippi River basins. The dispersal barrier system was developed to prevent the spread of invasive fish species between these watersheds. It includes the construction and operation of a set of three electrical barriers, known as Barriers I, IIA, and IIB. A temporary Demonstration Dispersal Barrier (Barrier I) was constructed and has been operating in the CSSC since 2002. A permanent electric barrier (Barrier II), with a design life of 20 years, is being implemented in two independent stages (A & B). Barrier IIA is constructed and has been operational since April 2009. Barrier IIB is partially constructed and will be operational by FY 2011. When both stages of Barrier II are operational, Barrier I will be upgraded to a permanent facility. The existing barriers are formed of steel electrodes that are secured to the bottom of the canal. A low-voltage, pulsing DC current is sent through the cables, creating an electric field in the water. The electric field is an effective, non-lethal deterrent to fish and they do not swim across it.

Barrier I and Barrier II were authorized as separate projects. Section 3061 of WRDA 2007 reauthorized the barriers as a single project at Federal expense. WRDA 2007 further authorized USACE to upgrade and make permanent Barrier I; complete Barrier II; operate and maintain both barriers as a system; conduct a study of a range of options and technologies for reducing impacts of hazards that may reduce the efficacy of the barriers (efficacy study); and provide to each state a credit in an amount equal to the amount of funds the state contributed toward Barrier II. Section 126 of the Energy & Water Appropriations Act of 2010 provided limited authority for the implementation of recommendations from the Efficacy Study.

AUTHORIZATION: Section 126, Energy & Water Development Appropriations Act of 2010 (P.L. 111-85). Section 3061, Water Resources Development Act 2007. Barrier I (P.L. 110-114): Section 1202, Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended (P.L. 101-636, 11/29/90, as amended through 10/26/96), Section 2309, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery 2006 (P.L. 109-234). Barrier II: Section 1135, Water Resources Development Act 1986 (P.L. 99-662) (Continuing Authority Program), Section 345, FY 2005 DC Appropriations Act (P.L. 108-335).

REMAINING BENEFIT-REMAINING COST RATIO: N/A.

TOTAL BENEFIT-COST RATIO: N/A.

INITIAL BENEFIT-COST RATIO: N/A.

BASIS OF BENEFIT-COST RATIO: N/A.

SUMMARIZED FINANCIAL DATA

	Demo Barrier I		Barrier II & Perm. Barrier I
Estimated Federal Cost	$5,808,000		$82,917,000
Estimated Non-Federal Cost	0		0
Cash Contributions			2,275,000 [1/]
Other Costs			0
Project Cost Subtotals	$5,808,000		$85,192,000
Total Estimated Project Cost		$91,000,000	

PHYSICAL STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Barrier I	40	Sep 2013
Barrier II	60	Sep 2010

Physical Data

Barrier I: 12 160-ft steel cable electrodes over 54 ft of the CSSC + control building

Barrier II: 84 160-ft steel billet electrodes over 480 ft of the CSSC + 2 control buildings

[1/] Non-federal cash contributions for which a credit is to be provided.

SUMMARIZED FINANCIAL DATA

	Demo Barrier I	Barrier II & Perm. Barrier I	Total	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2007	$4,570,000	$ 6,825,000 [2/]	$11,395,000	
Allocations for FY 2008	738,000	7,872,000	8,610,000	
Allocations for FY 2009	500,000	7,857,000	8,357,000	
Conference Allowance for FY 2010	0	5,826,000	5,826,000	
ARRA Allocations for FY 2010	0	7,000,000	7,000,000	
Allocations thru FY 2010	5,808,000	35,380,000	41,188,000	45
Great Lakes Restoration Initiative Allocation for FY 2010	0	13,500,000	13,500,000	
Allocation Requested for FY 2011	0	5,200,000	5,200,000	66
Programmed Balance to Complete after FY 2011	0	31,112,000	31,112,000	
Unprogrammed Balance to Complete after FY 2011	0	0	0	

[2/] Includes CAP Section 1135 allocations of $3,702,000.

Division: Great Lakes and Ohio River District: Chicago Chicago Sanitary and Ship Canal Dispersal Barrier, IL

JUSTIFICATION: The Chicago Sanitary and Ship Canal is the primary hydraulic corridor for migration of aquatic nuisance species between the Great Lakes and Mississippi River watersheds. The adverse economic and ecological effects of invasive species can be highly significant, as evidenced by the Zebra Mussel and Sea Lamprey infestations of the Great Lakes. Asian Carp are present in large numbers in the Illinois River and have been captured immediately downstream of the barriers. While the operating experience from the electric barriers is limited, laboratory and field monitoring indicates that it can provide an effective deterrent to Asian carp migration while maintaining the commercial and economic viability of the Chicago Sanitary and Ship Canal. A study on the efficacy of the electric barriers has shown that during flood events, flows from the neighboring Des Plaines River and Illinois & Michigan Canal could provide fish a bypass route around the barriers. Construction of measures to reduce the chance of this bypass were recommended in an Interim Report of the Efficacy Study and will be funded through the Great Lakes Restoration Initiative. The final Efficacy Study, looking at longer term solutions for potential barrier bypasses, will be completed by the end of FY 2010.

FISCAL YEAR 2010: The Conference amount of $5,826,000 will be applied as follows:

Continue Maintenance of Barrier I and IIA	$ 2,750,000 [1/]
Complete Computer Modeling of Electric Field Extent	50,000
Continue Safety Testing	500,000
Complete Efficacy Study	1,080,000 [2/]
Continue Asian Carp Monitoring	600,000
Design & Initiate Construction of Additional Grounding to Limit Electric Field	846,000
Total	$ 5,826,000

FISCAL YEAR 2010: ARRA funds of $7,000,000 is being applied as follows:

Complete Construction of Barrier IIB Building	3,500,000
Complete Construction of Barrier IIB Electronics & Hydroacoustics	3,500,000
Total	7,000,000

FISCAL YEAR 2010: Great Lakes Restoration Initiative funding would be applied as follows:

Construct Interim Solutions for Potential Barrier Bypasses	13,174,000
Complete eDNA Validation Testing	326,000
Total	$ 13,500,000

[1/] Continued Maintenance of Barriers I and IIA during completion of Barrier IIB

[2/] Includes study of optimal operating parameters and potential bypasses by neighboring waterways

FISCAL YEAR 2011: The requested amount of $5,200,000 will be applied as follows:

Complete Design for Permanent Barrier I	$ 1,000,000
Begin Construction of Permanent Barrier I	4,200,000
Total	$ 5,200,000

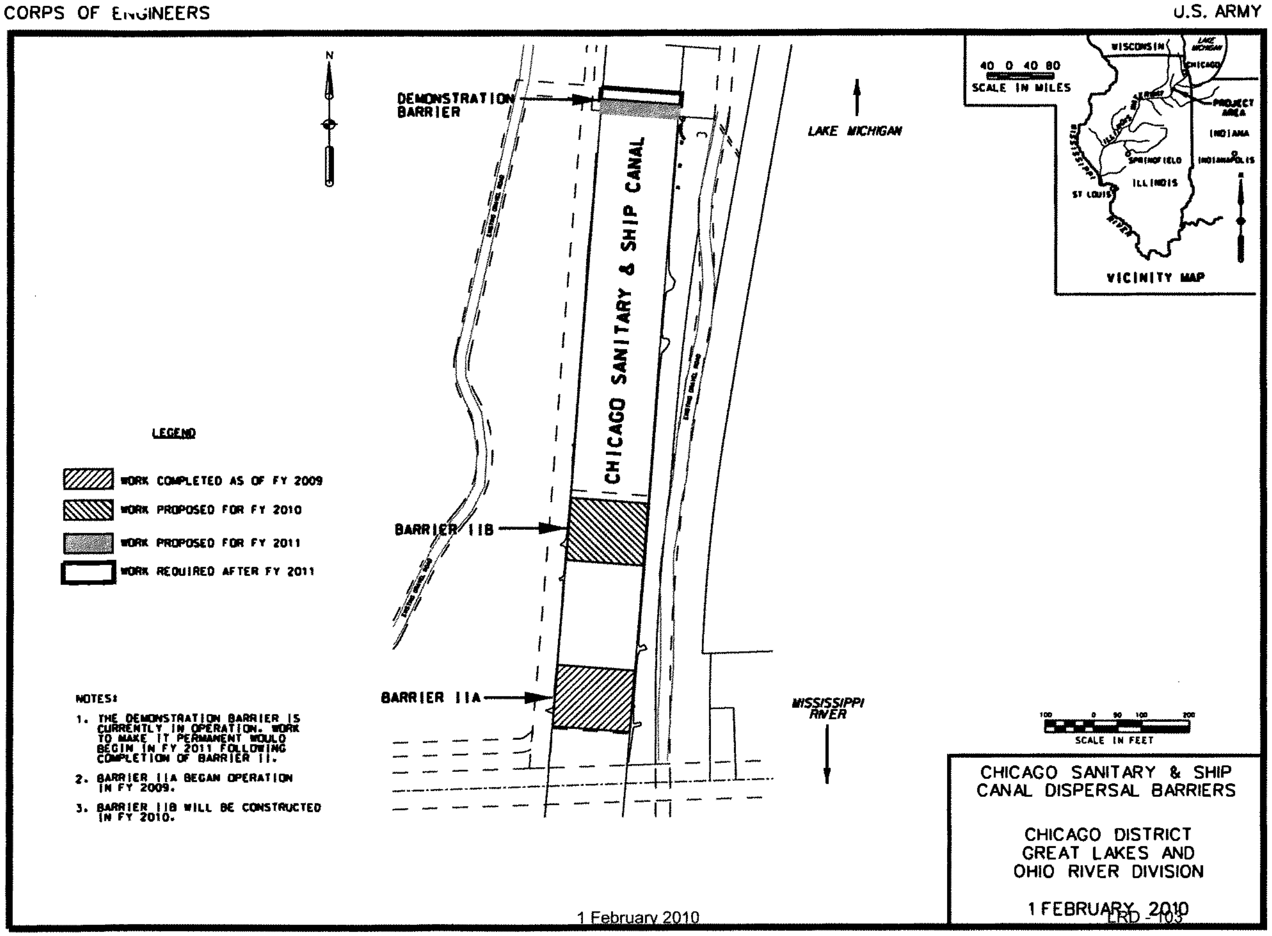
NON-FEDERAL COST: The non-Federal contribution to the project through FY07 was $2,275,000. WRDA 2007 made the remainder of the project, including future operation and maintenance, a full Federal responsibility and provides the states that previously contributed to the project a credit on future work with the Corps for the funds they contributed.

STATUS OF LOCAL COOPERATION: As a result of WRDA 2007, the barrier project is 100% Federal. The State of Illinois was the local sponsor for the Barrier II project. The Project Cooperation Agreement was executed on 21 November 2003 and amended on 14 July 2005.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate is $91,000,000. The Federal cost estimate reported for the FY 2010 budget was $36,455,000. The increase of $54,545,000 is primarily due to increased construction costs for Barrier IIB due to effort to expedite completion, increased operating costs for Barrier II, initiation of an enhanced Asian carp monitoring program, and assumed rapid implementation of interim solutions for potential barrier bypasses via neighboring waterways.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment was issued in August 1999. A Finding of No Significant Impact was signed 28 December 1999.

OTHER INFORMATION: Funds to initiate construction for Barrier I were appropriated in FY 1998. Barrier II was initiated under Section 1135, WRDA 1986 . After Section 345 was enacted, funds specifically for Barrier II were appropriated in FY 2005. Authorization to implement temporary solutions to the potential bypasses was contained in Section 126 of the FY 2010 Energy & Water Appropriations Act. Funding ($13,500,000) to construct measures to prevent bypassing of the barriers and confirmation testing of monitoring techniques was provided in FY 2010 through the Great Lakes Restoration Initiative. FY 2011 President's Budget amount of $7,250,000 for the operation of the Barriers I and II , safety testing, and installing Acoustic Bubble Barrier are included under the Operations and Maintenance Account.



LEGEND

- ▨ WORK COMPLETED AS OF FY 2009
- ▧ WORK PROPOSED FOR FY 2010
- ▩ WORK PROPOSED FOR FY 2011
- ☐ WORK REQUIRED AFTER FY 2011

NOTES:

1. THE DEMONSTRATION BARRIER IS CURRENTLY IN OPERATION. WORK TO MAKE IT PERMANENT WOULD BEGIN IN FY 2011 FOLLOWING COMPLETION OF BARRIER II.
2. BARRIER IIA BEGAN OPERATION IN FY 2009.
3. BARRIER IIB WILL BE CONSTRUCTED IN FY 2010.

CHICAGO SANITARY & SHIP
CANAL DISPERSAL BARRIERS

CHICAGO DISTRICT
GREAT LAKES AND
OHIO RIVER DIVISION

1 FEBRUARY 2010

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
F&CSDR=Flood and Coastal Storm Damage Reduction
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Allegheny River, PA

AUTHORIZATION: Rivers and Harbors Act 1912 and 1935; Emergency Relief Administration program 1935

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Allegheny River which extends 72 miles from the point in Pittsburgh, PA to East Brady, PA. Commercial and recreational navigation is provided from eight locks and dams which are Locks and Dams 2 thru 9 within the 72 mile reach of river, including the CW Bill Young Lock and Dam (formerly Lock and Dam 3).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 6,024,000
CONFERENCE AMOUNT FOR FY2010: T: $ 8,590,000
BUDGET FOR FY2011: M: $ 1,640,000 **O**: $ 6,816,000 **T**: $ 8,456,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $8,456,000 – Operate and maintain eight navigation locks and dams. Dewater CW Bill Young Lock chamber to repair miter gates, gate sills, and valves.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Allegheny River navigation system serviced 2,712,430 tons of cargo in 2007.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Alum Creek Lake, OH

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Alum Creek Lake is located in Delaware County, OH, on a tributary of the Scioto River. It is 26 miles above the mouth of Alum Creek and 157 miles above the mouth of the Scioto River. Alum Creek is impounded by a rolled earth fill dam with a gated concrete spillway. The crest length of the dam is 10,200 feet. The dam was completed in August 1974.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,920,000
CONFERENCE FOR FY 2010: T: $1,468,000
BUDGET FOR FY 2011: M: $0 **O**: $1,435,000 **T**: $1,435,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $974,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $232,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $79,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $150,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 35 million gallon per day of water supply for the health, safety and economy of approximately 100,000 citizens in the Columbus, OH metro area.

OTHER INFORMATION: Alum Creek Lake has prevented over $148,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 2,874,282.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ashtabula Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1919 (P.L. 65-200), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Ashtabula Harbor is a deep draft commercial harbor, located on the southern shore of Lake Erie at the mouth of the Ashtabula River, 55 miles east of Cleveland, in Ashtabula County, OH, whose authorized depths are 22-30 feet in the outer harbor and 16-18 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,267,000
BUDGET FOR FY 2011: M: $1,920,000 **O:** $75,000 **T:** $1,995,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,995,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, dredging, critical structure repair and snagging and clearing. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays, transportation costs and potential damage to shoreline structures. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 100,000 cubic yards of sediment from the harbor thereby improving the availability and reliability of the navigation channels and providing approximately $3,000,000 in transportation cost savings to commercial shippers. The structure repair work will repair approximately 180 linear feet of deteriorated sections of the east breakwater and remove isolated snags from the channel thereby improving the condition and reliability of the harbor.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Ashtabula Harbor is the 74th leading U.S. port with 5,580,000 tons of material shipped or received in 2007 and is ranked 15th among the Great Lakes Ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the U.S. Coast Guard, the Ashtabula Port Authority, Norfolk Southern Ashtabula Coal Dock, Pinney Dock and Transport Company and Sidley Stone Products. Bulk commodities that pass through Ashtabula Harbor generate approximately $128,246,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Barkley Dam & Lake Barkley, KY & TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Barkley Dam and Lake Barkley is located in southwestern Kentucky near Paducah, KY. Project consists of a 110' x 800' lock, earth & concrete gravity-type dam, hydropower plant & a flood storage reservoir with recreation & stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $4,546,800
CONFERENCE FOR FY 2010: T: $9,877,000
BUDGET FOR FY 2011: M: $1,704,000 **O**: $8,321,000 **T**: $10,025,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,799,000 - funding provides for routine operations & maintenance for navigation; critical fleet maintenance; continued development of upland disposal area for dredged material; navigation joint costs for data acquisition for dam safety, FDR operations and Real Estate to resolve encroachments. Funds would improve navigation performance by providing maintenance of locks and channels, thus reducing industry delays.

F&CSDR: $438,000 - funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: $1,405,000 - funding provides for critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: $2,732,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam. Funds would allow power plant to accomplish assigned missions of providing low cost reliable electric power by maintaining optimum availability and peak availability and maintain control of the river.

ES: $735,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. Funding assures sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevents loss and degradation of more than 108,000 acres of project lands and water.

WS: $16,000 - funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Steady and reliable movement of coal and aggregate is vital to the Tennessee Valley Authority due to limited storage at their fossil fuel power plants. Shippers relying on Barkley Lock realized average annual transportation cost savings of more than $49,000,000. Hydropower plant generates 690,000 MWH of energy annually, enough supply for 58,000 homes. Ranks #20 in the USACE for recreation with 3,300,000 project visits in FY07 with $58,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Barren River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Barren River Lake is located in south-central Kentucky approx 95 miles south of Louisville and about 16 miles southwest of Glasgow, Kentucky. The dam site is at mile 79.2 on Barren River. The dam is rolled earth and rockfill, 146 ft high and 3,970 ft long. The lake area lies in Allen and Barren Counties with a small portion located in Monroe County. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $2,577,000
CONFERENCE AMOUNT FOR FY2010: T: $2,389,000
BUDGET FOR FY2011: M: $1,024,000 **O:** $2,430,000 **T:** $3,454,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $2,592,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $622,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $228,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $6.232M, FY2008 recreation visits were 1.4M, and FY2008 visitor expenditures were $40.34M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Beech Fork Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Beech Fork Lake is located in Wayne County, WV on Twelvepole Creek. It is 3.7 miles above the mouth and 2 miles southeast of Lavalette, WV. The lake is impounded by a rolled earth fill dam with a maximum height of 86 feet and a crest length of 1,080 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,695,000
CONFERENCE FOR FY 2010: T: $1,335,000
BUDGET FOR FY 2011: M: $0 **O**: $1,377,000 **T**: $1,377,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $840,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $484,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $53,000 – Funding provides for routine operations and maintenance for environmental stewardship and for initiation and completion of the vegetation classification to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Beech Fork Lake has prevented over $20,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,374,071.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Berlin Lake, OH

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Berlin Lake Dam is located on the Mahoning River in Mahoning and Portage Counties, OH, about 10 miles upstream from Milton Dam (Non-Federal Project) and about 35 miles upstream from Warren, OH. The lake is located in Mahoning, Portage and Stark Counties, OH. Berlin Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 3,357,001
CONFERENCE AMOUNT FOR FY2010: T: $ 2,089,000
BUDGET FOR FY2011: M: $ 0 **O**: $2,347,000 **T**: $ 2,347,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,468,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $719,000 – Operate and maintain recreation facilities, including the largest campground in the District with 348 campsites. The lake has four boat launch ramps.

Hydro: N/A

ES: $75,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: $85,000 – Negotiate and implement a water supply contract with the Mahoning Valley Sanitary District.

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Berlin Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Big Sandy Harbor, KY

AUTHORIZATION: River and Harbor Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Big Sandy Harbor consists of the lower 9.0 miles of the Big Sandy River, starting at its confluence with the Ohio River. The Big Sandy Harbor requires dredging portions of the lower 9.0 miles of the Big Sandy River annually; if not, the harbor will silt in and commercial traffic would be drastically impacted. This would have a detrimental impact on the commercial and navigation industry.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $35,000
CONFERENCE FOR FY 2010: T: $1,625,000
BUDGET FOR FY 2011: M: $1,600,000 **O**: $0 **T**: $1,600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,600,000 – Funding provides for routine operations and maintenance for navigation to maintain the minimum project dimensions.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The average tonnage of commodities transported on this waterway exceeds 22,000,000. This is a critical waterway for the region primarily supporting energy related cargo.

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Black Rock Channel and Tonawanda Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1888, 1916 (P.L. 63-291), 1919 (P.L. 65-200), 1922 (P.L. 67-362), 1925 (P.L. 68-585), 1935 (P.L. 74-409) & 1945 (P.L. 79-14) and the Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Black Rock Channel and Tonawanda Harbor is located on Niagara River in the city of Buffalo, Erie County, NY. It provides for vessels of all types a protected waterway around the reefs, rapids, and fast currents that exist in the upstream portions of the Niagara River. The lock and channel permit pleasure craft and commercial vessels to travel between Buffalo Harbor and Tonawanda Harbor. In combination with the New York Erie Canal, they provide vessels an inland water route between Lake Erie and the Atlantic Ocean. Major stakeholders include U.S. Coast Guard, Marathon Ashland Petroleum, NOCO Energy Corp., United Refining Co., and NRG Huntley Power Plant.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $2,042,237
CONFERENCE AMOUNT FOR FY2010: T: $1,428,000
BUDGET FOR FY2011: M: $480,000 **O:** $1,072,000 **T:** $1,552,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,530,000 - Funding provides for routine operations and maintenance for navigation, including lock functions and performance of project condition surveys. These funds would improve navigation performance by providing for continued operation and maintenance of the lock to ensure availability for commercial and recreational users. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests.

F&CSDR: N/A

Rec: $7,000 – Funding provides for public visitation tracking at Bird Island Pier. These funds will be used to monitor and evaluate the public use of the Bird Island Pier in Buffalo, NY. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: $15,000 – Funding will provide for preparation of a Historic Properties Management Plan.

WS: N/A

OTHER INFORMATION: The lock provides the only means for deep draft commercial vessels to reach delivery ports on the upper Niagara River; including a major coal power generation plant, fuel storage facilities and a refinery. With 1,196 lockages in 2008, the lock provided safe passage for 1,694 vessels (311 commercial and 1,383 recreational).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bluestone Lake, WV

AUTHORIZATION: Executive Order of the President 7183-A, September 12, 1935 as amended by the Section 5 of the Flood Control Act (FCA) of 1936 (P.L. 74-738) and Section 4 of the FCA 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Bluestone Lake is located in Summers County, WV on the New River, a tributary of the Kanawha River; 64.8 miles above the mouth of the New River. The lake is impounded by a concrete gravity dam with a gated spillway. The top length of the dam is 2,048 feet with a maximum height of 165 feet. The dam was completed in December 1947.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,082,000
CONFERENCE FOR FY 2010: T: $1,579,000
BUDGET FOR FY 2011: M: $27,000 **O**: $1,673,000 T: $1,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,298,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; and purchasing and installing a ConVault for the standby generator, to ensure operation in case of power failure.

Rec: $330,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $72,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Bluestone Lake has prevented over $2,000,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 2,080,469.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Bluestone Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Brookville Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Brookville Lake is located in Franklin and Union counties on the East Fork of the Whitewater River. The dam is about ½ mile above Brookville, Indiana. The dam is earthfill, 181 ft high and 2,800 ft long. The project was authorized as a multi-purpose project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $163,612
CONFERENCE AMOUNT FOR FY2010: T: $819,000
BUDGET FOR FY2011: M: $160,000 **O:** $981,000 **T:** $1,141,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,000,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $79,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $56,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $1.532M, FY2008 recreation visits were 593K, and FY2008 visitor expenditures were $18.31M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Buckhorn Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Buckhorn Lake is located in southeastern Kentucky, 43.3 river miles upstream from Beattyville, KY, where the Middle Fork and the North Fork of the Kentucky River converge. The dam site is 0.5 miles upstream from the community of Buckhorn. The dam is earth and rockfill with gate controlled outlet works as well as a gate controlled spillway and is 160 ft high and 1,020 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $881,900
CONFERENCE AMOUNT FOR FY2010: T: $1,506,000
BUDGET FOR FY2011: M: $20,000 **O**: $1,635,000 **T**: $1,655,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,028,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $454,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $173,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $13K, FY2008 recreation visits were 264K, and FY2008 visitor expenditures were $7.86M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Buffalo Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1826, 1866, 1874, 1900, 1910 (P.L. 60-317), 1912 (P.L. 61-425), 1919 (P.L. 65-200), 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). WRDA of 1986 (P.L. 99-662), 1988 (P.L. 100-676) and 2007 (P.L. 110-114)

LOCATION AND DESCRIPTION: Buffalo Harbor is a deep draft commercial harbor, located on Lake Erie in the city of Buffalo, Erie County, NY whose authorized depths are 23-30 feet in the outer harbor and 22 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $570,482
CONFERENCE AMOUNT FOR FY2010: T: $1,548,000
BUDGET FOR FY2011: M: $1,075,000 **O:** $90,000 **T:** $1,165,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,165,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys and dredging. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 100,000 cubic yards of sediment from the harbor thereby improving the availability and reliability of the navigation channels and providing approximately $3,800,000 in transportation cost savings to commercial shippers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks on the Buffalo River and Buffalo Outer Harbor. Buffalo Harbor is the 127th leading U.S. port with 1,620,000 tons of material shipped or received in 2007 and is ranked 29th among the Great Lakes Ports. Major stakeholders include the Port of Buffalo, U.S. Coast Guard, General Mills, Exxon-Mobil, Lafarge Cement and Founders Supplies, Incorporated. Bulk commodities that pass through Buffalo Harbor generate approximately $16,842,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Burns Waterway Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1965 (P.L. 89 -298); Sec 121 of Energy and Water Development Appropriations Act, 2005 (P.L. 108-447)

LOCATION AND DESCRIPTION: Burns Waterway Harbor is in northwestern Indiana on the southern shore of Lake Michigan in Porter County, 28 miles southeast of Chicago Harbor. The project consists of a north breakwater (4,630 feet of rubblemound structure); a west breakwater (1,200 feet of rubblemound structure); an approach channel (400 feet wide and 30 feet deep); Outer Harbor Basin (28 feet deep); and East and West Harbor Arms (each 27 feet deep and 620 feet wide).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 157,000
BUDGET FOR FY2011: M: $ 0 **O**: $171,000 **T**: $171,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $171,000 – Funds regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to customers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Burnsville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Burnsville Lake is located in Braxton County, WV on the Little Kanawha River. It is 124.2 miles above it's confluence with the Ohio River and approximately 3 miles above the town of Burnsville, WV. The lake is impounded by a rockfill embankment with impervious core dam with a gated spillway. The crest length of the dam is 1,400 feet. The dam was completed in January 1976.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,727,000
CONFERENCE FOR FY 2010: T: $2,134,000
BUDGET FOR FY 2011: M: $507,000 **O**: $2,542,000 **T**: $3,049,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,799,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; for correction of the spillway gate structural deficiency to ensure that the project is able to adequately impound the volume of water for which it was designed; and to develop the Interim Risk Reduction Measures plan for the project, to reduce the risk of failure at the project.

Rec: $1,139,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $111,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Burnsville Lake has prevented over $144,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 796,619.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Caesar Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Caesar Creek Lake is located in Warren, Clinton and Greene Counties in Ohio. The dam is earth and rockfill with four saddle dams, outlet works and spillway. The dam is 165 ft high and 2,650 ft long. It is the site of a class "A" visitor center and world renowned for its 450 million year old Ordovician fossil beds exposed by the projects emergency spillway. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $2,768,991
CONFERENCE AMOUNT FOR FY2010: T: $1,425,000
BUDGET FOR FY2011: M: $5,000 **O**: $1,554,000 **T**: $1,559,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,171,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $295,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $87,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $41.79M, FY2008 recreation visits were 1.0M, and FY2008 visitor expenditures were $35.15M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cagles Mill Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cagles Mill Lake lies in Owen and Putnam Counties in south-central Indiana near Poland, Indiana, approximately midway between Indianapolis and Terre Haute. The dam is located on Mill Creek, 2.8 miles above its confluence with Big Walnut Creek, forming the Eel River. The dam is earth and rockfill with gate controlled outlet works and uncontrolled open spillway and is 150 ft high and 900 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $40,135
CONFERENCE AMOUNT FOR FY2010: T: $848,000
BUDGET FOR FY2011: M: $7,000 **O**: $1,023,000 **T**: $1,030,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $953,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $29,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $48,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $27.931M, FY2008 recreation visits were 467K, and FY2008 visitor expenditures were $13.86M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Calumet Harbor and River, IL & IN

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1935, 1960, 1962, and 1965 (P.L. 89-209)

LOCATION AND DESCRIPTION: Calumet Harbor and River is in northeastern Illinois, on the southwest shore of Lake Michigan in Cook County, 15 miles south of Chicago Harbor, within the corporate limits of the City of Chicago, except for breakwaters, approach channel and an anchorage area which are in Indiana. The project consists of two miles of breakwater (6,714 feet concrete capped timber crib structures, 5,007 feet of stone-filled sheetpile cell structures), an approach channel (3,200 feet wide, 1.8 miles long and 29 feet deep); a harbor channel (3,000 feet wide, two miles long and 28 feet deep); a river navigation channel (8 miles long and 27 feet deep); three turning basins; a confined disposal facility (CDF) with a design storage capacity of 1,400,000 cubic yards; a boat shed facility; and a stone dock.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 1,100,000
CONFERENCE AMOUNT FOR FY2010: T: $ 4,621,000
BUDGET FOR FY2011: M: $ 2,700,000 **O**: $1,538,000 **T**: $4,238,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,238,000 – $100,000 funds CDF water quality monitoring to meet State of Illinois CDF permit requirements. $100,000 completes time critical Dredged Material Management Plan in a major commercial deep draft port with contaminated sediments in all channels. $338,000 funds regular operations, navigation channel and structures' inspections, safety signs, and responsiveness to customers. This also funds annual safety inspections. $800,000 funds primary dredging of high use commercial deep draft narrow river channel to restore port to fully functional width. $1,000,000 funds the construction of a new CDF weir, which will allow normal sediment placement/storage operations to continue. This also funds sediment management (grading). $1,900,000 funds repair of a critical 800-ft section of the failing harbor entrance breakwater.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The 131 stone-filled steel sheetpile cells that form the detached breakwater require annual maintenance to prevent cell failures and the propagation of further cell breaches. This protection of this breakwater is critical for the safe towing of river barges between Calumet Harbor and the 3 Indiana ports, Burns Harbor, Calumet Harbor, and Indiana Harbor. Transportation cost savings from this project are $783,129.

Division: Great Lakes and Ohio River District: Chicago
Calumet Harbor and River, IL & IN

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Carr Creek Lake, KY

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Carr Creek Lake is located in the mountainous region of southeastern Kentucky, about 12 miles south of Hazard, Kentucky. The dam is located on Carr Fork, 8.8 miles above the confluence with the North Fork of the Kentucky River, approximately 16 miles upstream from Hazard. The entire project lies in Knott County. The dam is rock and earthfill, 130 ft high and 720 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $409,702
CONFERENCE AMOUNT FOR FY2010: T: $1,651,000
BUDGET FOR FY2011: M: $7,000 **O**: $1,875,000 **T**: $1,882,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,152,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $576,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $148,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $19K, FY2008 recreation visits were 690K, and FY2008 visitor expenditures were $13.44M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cave Run Lake, KY

AUTHORIZATION: Flood Control Act of 1936 & 1938 (P.L. 74-738 & 75-761)

LOCATION AND DESCRIPTION: Cave Run Lake is located in northeastern Kentucky, about 12 miles south of Morehead, Kentucky. The dam site is at mile 173.6 of the Licking River. The dam is rolled earth and rockfill with gate controlled outlet works and is 148 ft high and 2,700 ft long. The lake is confined within Bath, Menifee, Morgan and Rowan Counties and within the proclamation boundary of the Daniel Boone National Forest. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $75,021
CONFERENCE AMOUNT FOR FY2010: T: $880,000
BUDGET FOR FY2011: M: $0 **O**: $965,000 **T**: $965,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $692,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $169,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilties and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $92,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $5.192M, FY2008 recreation visits were 404K, and FY2008 visitor expenditures were $8.28M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cecil M. Harden Lake, IN

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Cecil M. Harden Lake lies in Parke and Putnam Counties near Ferndale, Indiana. It is located in west-central Indiana about 50 miles west of Indianapolis. The dam is located on Big Raccoon Creek approximately 33 miles upstream of its confluence with the Wabash River. The dam is rolled earth with gate controlled outlet works and uncontrolled open spillway and is 119 ft high and 1,860 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $53,000
CONFERENCE AMOUNT FOR FY2010: T: $976,000
BUDGET FOR FY2011: M: $4,000 **O**: $1,009,000 **T**: $1,013,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $972,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $41,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $22.45M, FY2008 recreation visits were 1.1M, and FY2008 visitor expenditures were $29.19M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Center Hill Lake, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Center Hill Lake is located in eastern Middle Tennessee, about 80 miles east of Nashville, TN. The project consists of a combination earth and concrete gravity-type dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $6,023,467
CONFERENCE FOR FY 2010: T: $ 5,838,000
BUDGET FOR FY 2011: M: $146,000 **O** $4,921,000 **T**: $5,067,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $723,000 - funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: $1,105,000 - funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: $3,031,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining optimum availability and peak availability and maintain control of the river.

ES: $168,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 39,000 acres of project lands and water.

WS: $40,000 - funding provides for vital coordination with all water supply users for continuing major rehabilitation work, to include a determination of annual operations and maintenance costs as well as repair, rehabilitation and replacement costs for ongoing major rehabilitation work.

OTHER INFORMATION: Hydropower plant generates 381,000 MWH of energy annually, which is enough supply for 32,000 homes. Center Hill Lake ranks #15 in the USACE for recreation with 3,900,000 project visits in FY07 with an associated $66,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Channels in Lake St. Clair, MI

AUTHORIZATION: Rivers and Harbors Acts of 1886, 1892, 1902, 1919, 1930, 1945, 1956

LOCATION AND DESCRIPTION: Lake St. Clair is located in southeast Michigan with the northwest portion of the lake lying within the United States and the southeast portion of the lake lying within Canada. Lake St. Clair is an expansive shallow basin containing one of the Great Lakes connecting channels running from the mouth of the St. Clair River to the head of the Detroit River. The channels in Lake St. Clair provide for an improved channel 800 feet wide and 14.5 miles long to a depth of 27.5 feet. Maintenance dredging is required in the upper end of the channels on a five to ten year cycle and was last completed in 2009. Dredged material is placed in the Dickinson Island Disposal Facility.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,555,000
BUDGET FOR FY 2011: M: $950,000 **O**: $167,000 **T**: $1,117,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,117,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and dredging by contract to provide minimum functional depth at the most critical reaches of the navigation channel. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between $6.9 million and $23.7 million.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Charlevoix Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1876, as amended

LOCATION AND DESCRIPTION: Charlevoix Harbor is located on the east shore of Lake Michigan, 276 miles northeast of Chicago, IL and 75 miles northeast of Frankfort, MI. It is a deep draft commercial harbor with project depths of 18 feet in Lake Michigan and 18 feet in the inner channels to Lake Charlevoix. Charlevoix Harbor has over 4,100 feet of structures including piers and revetments. Approximately one mile of the channel is maintained. Maintenance dredging is typically required on a 10 to 15 year cycle. The harbor was last dredged in 1984. Obstruction removal by Government floating plant is required annually in the entrance channel.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $193,000
BUDGET FOR FY 2011: M: $160,000 **O**: $48,000 **T**: $208,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $208,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and strike removal by Government floating plant. Commercial vessel operations and/or wave and ice action annually dislodge scour stone from the navigation structures resulting in movement of stones into the adjacent channel which creates unsafe channel conditions for vessel movements.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cheatham Lock and Dam, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Cheatham Lake is located in middle Tennessee, 42 river miles downstream of Nashville, TN. The project consists of a 110' x 800' lock, concrete gravity-type dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,700,040
CONFERENCE FOR FY 2010: T: $6,133,000
BUDGET FOR FY 2011: M: $ 392,000 **O:** $5,966,000 **T:** $6,358,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,353,000 funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; navigation portion of joints costs for data acquisition for dam safety, F&CSDR operations & RE costs to resolve encroachments. These funds would improve navigation performance by providing maintenance of locks & channels. No alternate navigation route is available. Approx 3,500,000 tons coal shipped thru lock providing 4,700,000,000 KWH to electrical grid. Nashville industries depend on bulk commodity delivery for raw materials.

F&CSDR: N/A.

Rec: $933,000 - funding provides critical health & safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: $2,023,000 - funding provides for routine operations & maintenance for hydroelectric power plant. These funds would allow power plant to accomplish assigned mission of providing low cost reliable electric power by maintaining high availability and peak availability.

ES: $207,000 - funding provides for management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, & cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles & stewardship policies and prevent loss & degradation of more than 10,000 acres to project lands & water.

WS: $16,000 - funding provides for evaluating all new intake requests impacts to navigation. System wide operation of Cumberland River requires maintaining water supply data base.

OTHER INFORMATION: Cheatham Lock processed an average of 9,600,000 tons waterborne commerce annually from 2000 to 2005. Coal and aggregates are dominant commodities. Electric utilities serving the Southeast move coal from mines in Wyoming & Kentucky through Cheatham. Construction companies move cement & aggregates and steel fabricators move iron & steel products into the Cumberland Valley. These & other shippers realize average annual transportation cost savings of more than $82,000,000. Hydropower plant generates 153,000 MWH of energy annually, enough supply for 13,000 homes. Cheatham Lake ranks #45 in USACE for recreation with 2,000,000 project visits in FY07 with $33,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chicago Harbor, IL

AUTHORIZATION: The Rivers and Harbors Acts of 1870, 1880, 1912, 1919, and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Chicago Harbor is in Northeastern Illinois on the southwest shore of Lake Michigan in Cook County, within the corporate limits of the City of Chicago. The project consists of Chicago Lock facilities, four outer breakwater reaches (2,250 feet of uncapped timber crib structures, 5,321 feet of concrete capped timber crib structures, 3,759 feet of laid-up stone structures, and 1,185 feet of concrete caisson structures) and two inner breakwater reaches (6,882 feet of concrete capped timber crib structures) that protect Navy Pier, Chicago Lock, Chicago Water Filtration Plant, Monroe St. Harbor, Grant Park and other facilities from damage due to storms. It includes an entrance channel (800 ft. wide and 29 feet deep), and an outer harbor area (28 feet deep). The channel to the mouth of the Chicago River is at a depth of 21 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 22,580,000
CONFERENCE AMOUNT FOR FY2010: T: $3,696,000
BUDGET FOR FY2011: M: $238,000 **O**: $1,826,000 T: $2,064,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,064,000 - $1,826,000 funds minimal routine operation of the Chicago Lock, with 100% availability to commercial tow boats and deep draft barges; government, passenger and recreational vessels. $238,000 funds minimal routine maintenance of the Chicago Lock.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Installation of new lock gates funded under American Recovery and Reinvestment Act will be completed during lock shutdown, November 2010 to April 2011.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chicago River, IL

AUTHORIZATION: Rivers and Harbors Acts of 1899, 1902, 1907, and 1946 (P.L. 79-525)

LOCATION AND DESCRIPTION: Chicago River is in Northeastern Illinois, in Cook County within the corporate limits of the City of Chicago. The project consists of a river navigation channel that is 2.97 miles long and 21 feet deep from Michigan Avenue to North Avenue. A navigation channel approximately 3.7 miles long and 9 feet deep from North Avenue to Addison Street has also been authorized, but not constructed. The project also includes a perpetual responsibility for water control, and routine and emergency monitoring of the waterways within the Chicago District.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $469,000
BUDGET FOR FY2011: **M**: $ 0 **O**: $ 510,000 **T**: $510,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&SCDR: $510,000 – Funding will be used for water control to collect precipitation and streamgage data for use by District teams to perform flood surveillance. River operations are in a major metropolitan area. Water control and streamgage network are essential elements to prevent catastrophic property and life losses in the Metropolitan Chicago area.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chicago Sanitary and Ship Canal (CSSC) Aquatic Nuisance Species Dispersal Barriers

AUTHORIZATION: Section 3061, Water Resources Development Act 2007 (P.L. 110-114)

LOCATION AND DESCRIPTION: The Chicago Sanitary and Ship Canal (CSSC) is a manmade waterway that connects the Chicago River and the Des Plaines River, which creates a connection between Lake Michigan and the Mississippi River basin. A system of three barriers is being developed to prevent the migration of aquatic nuisance species between the watersheds. A temporary Demonstration Dispersal Barrier (Barrier I) has been operating in the CSSC since 2002. The first permanent dispersal barrier (Barrier IIA) has been constructed and is also in operation. A second permanent barrier, Barrier IIB is under construction. Upon completion of Barrier IIB, Barrier I will be reconstructed as a permanent facility.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: **T**: $ 0
CONFERENCE AMOUNT FOR FY 2010: T: $ 0
BUDGET FOR FY 2011: **M**: $ 0 **O**: $7,450,000 **T**: $7,450,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: $7,250,000 – Operate Barriers I and IIA, conduct safety testing, continue Asian Carps monitoring, and install Acoustic Bubble Barrier to prevent movement of invasive fish, including Asian carp.

WS: N/A

OTHER INFORMATION: FY11 President's Budget supports design and construction to upgrade Barrier I under the Construction Account.

Division: Great Lakes and Ohio River District: Chicago Project Name: CSSC Barriers, IL

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chickamauga Lock, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Chickamauga Lock is located at Mile 471.0 on Tennessee River in Chattanooga, Tennessee. Chickamauga Lock (360' x 60') was completed in 1940. Concrete expansion from alkali aggregate reaction will eventually require lock closure. Aggressive maintenance is required until the new 110' x 600' lock is completed. Lock closure before new lock is in place will shut off 318 miles of river above Chattanooga, including river access to Knoxville and Oak Ridge, TN.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,337,000
CONFERENCE FOR FY 2010: T: $3,775,000
BUDGET FOR FY 2011: M: $3,500,000 **O**: $ 0 **T:** $3,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,500,000 – funding provides for complete dive inspection of the entire facility including upper & lower guard walls, grouting of the downstream apron and installation of gate anchorage on the downstream land wall. The dewatering and dive inspections allow assessment of the lock's condition such that we can detect structural deficiencies that could be corrected if caught in time. Every year's aggressive maintenance work is critical to ensuring success to keep Chickamauga open until the new lock is operational.

F&CSDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A

OTHER INFORMATION: Reliability problems from concrete growth is causing lock failure. Existing lock closure before new lock is constructed will shut off 318 miles of river above Chattanooga, including river access to Knoxville and Oak Ridge, TN. Considerable river use for military and rocket booster shipments expected to increase. Oversized nuclear steam generators and components of $1.7 billion dollar Spallation Neutron Source Program at Oak Ridge National Laboratory moved by water transportation. Boeing Plant shipments have national security impacts. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam and nuclear plants.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Clarence J. Brown Dam & Reservoir, OH

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Clarence J. Brown Dam & Reservoir is located in the northeastern corner of Clark County near Springfield, Ohio. The project is on Buck Creek, about 7 miles above the confluence with the Mad River, a tributary of the Great Miami River. The dam is earthfill with gated controlled outlet works and uncontrolled open spillway and is 72 ft high and 6,620 ft long. It is the site of a class "B" visitor center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $96,000
CONFERENCE AMOUNT FOR FY2010: T: $1,088,000
BUDGET FOR FY2011: M: $5,000 **O**: $1,185,000 **T**: $1,190,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $960,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $148,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $82,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $515K, FY2008 recreation visits were 1M, and FY2008 visitor expenditures were $23.38M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cleveland Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1875 (18 Stat 456), 1888 (25 Stat 400), 1903 (P.L .57-154), 1910 (P.L. 60-317), 1917 (P.L. 64-108), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1958 (P.L. 85-500), 1960 (P.L. 86-645) and 1962 (P.L. 87-874). Flood Control Acts of 1937 (P.L. 75-406), 1946 (P.L. 79-526) and 1962 (P.L. 87-874). WRDA 1976 (P.L. 94-587) and 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Cleveland Harbor is a deep draft commercial harbor located on Lake Erie in the city of Cleveland, OH, whose authorized depths 28 feet in the outer harbor and 23 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $7,400,000
CONFERENCE AMOUNT FOR FY2010: T: $7,460,000
BUDGET FOR FY2011: M: $9,940,000 **O:** $740,000 **T:** $10,680,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $10,680,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, dredging, structure repair and snagging and clearing, confined disposal facility (CDF) maintenance, planning, engineering, and design for a new Dredged Material Disposal Facility (DMDF), implementation of interim measures to extend CDF life (Dike 12-Phase 2), engineering and design of interim CDF measures (Dike 9), and regional economic data collection. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays, transportation costs and potential damage to shoreline structures. The project condition surveys will determine the condition of the Federal navigation channel. The dredging will remove approximately 225,000 cubic yards of sediment, improving the availability and reliability of the navigation channels. The structure repair work will repair approximately 100 linear feet of deteriorated sections of the east and west arrowhead breakwater and remove isolated snags from the channel thereby improving the condition and reliability of the harbor. The CDFs are at or past their original design capacity. The interim and long term measures that will be implemented are necessary to extend capacity until a new long term measure is available.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Cleveland is the 48th leading U.S. port with 12.8M tons of material shipped or received in 2007 and is ranked 6th among the Great Lakes Ports. Engineering, design, and construction of the Dredged Material Management Plan selected alternative and critical interim measures must be completed in FY2011-FY2014 to foster continued dredging.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Conemaugh River Lake, PA

AUTHORIZATION: Flood Control Act 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Conemaugh Dam is located on the Conemaugh River, in Indiana and Westmoreland Counties, PA, 7.5 miles upstream from Saltsburg, PA where the Conemaugh River and Loyalhanna Creek join to form the Kiskiminetas River. The reservoir is located in Indiana and Westmoreland Counties, PA. Conemaugh River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 285,000
CONFERENCE AMOUNT FOR FY2010: T: $1,191,000
BUDGET FOR FY2011: M: $ 112,000 **O**: $ 1,239,000 **T**: $ 1,351,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,150,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete critical repairs of the #12 Emergency Gate stem.

Rec: $86,000 – Operate and maintain recreation facilities, including a picnic area with two pavilions, playground, visitor information center, nature and hiking trails.

Hydro: N/A

ES: $115,000 - Accomplish shoreline management, threatened/endangered species surveillance, and cultural resource protection.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Conneaut Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1917 (P.L. 64-108), 1935 (P.L. 74-409), and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Conneaut Harbor is a deep-draft commercial harbor, ranked 76th in the Nation and 16th on the Great Lakes, located on Lake Erie in the city of Conneaut, Ashtabula County, OH, whose authorized depths are 22-28 feet in the outer harbor and 27 feet in the inner harbor.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $1,132,000
BUDGET FOR FY2011: M: $940,000 **O:** $0 **T:** $940,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $940,000 - Funding provides for routine maintenance for navigation including critical structure repair and snagging and clearing. These funds would enhance navigation performance by improving the condition of the breakwaters, reducing the potential for unsafe conditions within the harbor, and reducing the damage to shoreline structures resulting from failure of the breakwaters. The structure repair work will repair approximately 120 linear feet of deteriorated sections of the east and west breakwaters and remove isolated snags from the channel thereby improving the condition and reliability of the harbor.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Conneaut Harbor handled approximately 5,000,000 tons of materials in 2007, approximately 38% of which is foreign imports and exports. Bulk commodities that pass through Conneaut Harbor generate approximately $96,647,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cordell Hull Dam and Reservoir, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Cordell Hull Dam & Reservoir is located on the Cumberland River at river mile 313.5. The project consists of an 84' x 400' lock, concrete gravity and earth fill dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $5,541,100
CONFERENCE FOR FY 2010: T: $6,475,000
BUDGET FOR FY 2011: M: $170,000 **O**: $6,259,000 **T**: $6,429,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $625,000 funding provides for routine operations and maintenance at minimum levels for navigation. Joint operations are necessary to maintain flood control operation of the river. Lock must remain operational for maintenance of dam & hydroelectric facility.

F&CSDR: N/A.

Rec: $2,710,000 total of which $1,781,000 funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds and $929,000 funding provides for joint costs associated with operation of the dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: $2,844,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: $240,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 25,000 acres of project lands and water.

WS: $10,000 - funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Hydropower plant generates 363,000 MWH of energy annually, which is enough supply for 30,250 homes. Cordell Hull Reservoir ranks #36 in USACE for recreation with 2,400,000 project visits in FY07 with an associated $38,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Crooked Creek Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Crooked Creek Dam is located on Crooked Creek, in Armstrong County, PA, 7.2 miles above the junction of the creek with the Allegheny River near Ford City, PA. Crooked Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 353,600
CONFERENCE AMOUNT FOR FY2010: T: $ 1,599,000
BUDGET FOR FY2011: M: $ 272,000 **O**: $ 1,767,000 **T**: $ 2,039,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,647,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Accomplish critical repairs to restore ability to operate emergency gates.

Rec: $363,000 – Operate and maintain recreation facilities, including tent, trailer, and group camping, swimming, sheltered picnicing, hiking, snowmobile, and horseback riding trails. One boat launch ramp for fishing and water skiing.

Hydro: N/A

ES: $29,000 - Accomplish shoreline management, threatened/endangered species, surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dale Hollow Lake, Tennessee

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Dale Hollow Lake, TN project is located in northeastern middle Tennessee, near Celina, TN. The project consists of a concrete gravity dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31DEC 2009: T: $3,486,218
CONFERENCE FOR FY 2010: T: $ 6,069,000
BUDGET FOR FY 2011: M: $219,000 **O**: $6,000,000 **T**: $6,219,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $662,000 - funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: $1,833,000 - funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: $3,462,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: $235,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 52,000 acres of project lands and water.

WS: $27,000 - funding provides for evaluating all new intake requests. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Hydropower plant generates 126,000 MWH of energy annually, which is enough supply for 10,500 homes. Dale Hollow Lake ranks #18 in USACE for recreation with 3,400,000 project visits in FY07 with an associated $65,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Deer Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Deer Creek Lake is located in Pickaway County, OH, on Deer Creek which is a tributary of the Scioto River, 21 miles above the mouth of Deer Creek and 105.8 miles above the mouth of the Scioto River. The lake is approximately 7 miles southsouthwest of the town of Mount Sterling. Deer Creek Lake is impounded by a rolled earthfill dam with concrete gravity channel section that has a maximum height of 93 feet and a total crest length of 3,800 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $548,000
CONFERENCE FOR FY 2010: T: $1,407,000
BUDGET FOR FY 2011: M: $0 **O**: $1,323,000 **T**: $1,323,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $914,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $328,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $81,000 – Funding provides for routine operations and maintenance for environmental stewardship and initiation of the natural resources inventory to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Deer Creek Lake has prevented over $75,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 3,506,234.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Delaware Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Delaware Lake is located in central OH, situated along U.S. Route 23 and within Delaware, Marion, and Morrow Counties. Delaware Lake is located on the Olentangy River, a tributary of the Scioto River, 32 miles above the mouth of the Olentangy River, 164.4 miles above the mouth of the Scioto River, and 3 miles above Delaware city limits. The project was completed in July 1948, consists of an 18,600 foot long and 92 foot high embankment dam with a gated control concrete gravity spillway, including a 6,500 foot long embankment levee with two pump station works to protect the Village of Waldo and vicinity located 9 miles upstream from the dam. The outlet works consist of five gated tunnels which discharge into a concrete stilling basin. The spillway consists of six tainter gates and hoist machinery that operates to release excess storage to prevent overtopping and dam failure.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,922,000
CONFERENCE FOR FY 2010: T: $1,256,000
BUDGET FOR FY 2011: M: $2,000 **O**: $1,360,000 **T**: $1,362,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,093,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $235,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $34,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Delaware Lake has prevented over $133,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 872,658.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Delaware Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Detroit River, MI

AUTHORIZATION: Rivers and Harbors Act of 1902

LOCATION AND DESCRIPTION: The Detroit River is one of the Great Lakes connecting channels, flowing south from Lake St. Clair to Lake Erie. A total of 76 miles of Federal channels are maintained, including up-bound and down-bound lanes. It also contains various water level and compensating dikes and structures. This river requires maintenance dredging on a one to two year cycle and was last dredged in 2009. The project also requires obstruction removal in the hard bottom channels on a yearly basis.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $5,146,000
BUDGET FOR FY 2011: M: $4,200,000 **O**: $1,018,000 **T**: $5,218,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,163,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, strike removal by Government floating plant, and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between $7 million and $25 million. Commercial vessel operations and/or wave and ice action annually result in movement of adjacent stone or dislodging of rock from channel bottoms that result in unsafe channel conditions for vessel movements.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: $55,000 – Funding provides for maintaining compliance with the National Historic Preservation Act and with the Historic Management Plan.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dewey Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Dewey Lake is located in Floyd County, KY, on Johns Creek of the Levisa Fork, a tributary of the Big Sandy River. It is 5.4 miles above the mouth of Johns Creek and 79.4 miles above the mouth of the Big Sandy River. The lake is impounded by a rolled earth fill dam with an uncontrolled spillway. The crest length of the dam is 913 feet. The dam was completed in July 1949.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $393,000
CONFERENCE FOR FY 2010: T: $1,687,000
BUDGET FOR FY 2011: M: $0 **O**: $1,762,000 **T**: $1,762,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,038,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $672,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $52,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Dewey Lake has prevented over $91,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,157,290.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dillon Lake, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of FCA 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: Dillon Lake is located in Muskingum County, OH on the Licking River, a tributary of the Muskingum River. It is 5.8 miles above the mouth of the Licking River and 83.4 miles above the mouth of the Muskingum River. The lake is impounded by a rolled earth fill dam with impervious core and an uncontrolled partially concrete lined spillway. The top length of the dam is 1,400 feet. The dam was completed in July 1959.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $308,000
CONFERENCE FOR FY 2010: T: $1,298,000
BUDGET FOR FY 2011: M: $0 **O**: $1,260,000 **T**: $1,260,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,091,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $133,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $36,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Dillon Lake has prevented over $640,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,413,861.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Dillon Lake, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Duluth-Superior Harbor, MN, WI

AUTHORIZATION: Rivers and Harbors Act of 1896

LOCATION AND DESCRIPTION: Located on the western end of Lake Superior. Duluth-Superior Harbor is a deep draft commercial harbor with over 18 miles of maintained channel. Maintenance dredging is required on an annual basis, with the project last dredged in 2009. Dredged material is currently placed in the Erie Pier Confined Disposal Facility (CDF). The project also includes over 10,000 feet of structures including breakwaters, piers and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $8,613,000
BUDGET FOR FY 2011: M: $6,013,000 **O**: $1,224,000 **T**: $7,237,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $6,641,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, navigation breakwater repairs by Government floating plant, maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel, critical fill management activities at the Erie Pier CDF and continuing efforts on development of dredged material management plans. Funding ensures fully functional channels are maintained within the harbor, and that adequate capacity will be available at Erie Pier CDF for annual dredged material disposal. Duluth-Superior harbor handles over 45 million tons annually, and a loss of two feet of channel depth due to annual shoaling or deteriorated wave climate can result in increased transportation costs up to $6.9 million.

F&CSDR: N/A

Rec: $545,000 – Funding provides for routine operation and maintenance of the project's Class A visitor center and Lake Superior marine museum. These funds provide for operation of the visitor center and park that has annual visitation in excess of 275,000 people and provides educational opportunities related to commercial navigation and overall Corps of Engineers missions.

Hydro: N/A

ES: $51,000 – Funding provides for annual activities associated with compliance with State and Federal historic preservation requirements, including investigation and coordination of operation and maintenance activities and document preservation.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: East Branch Clarion River Lake, PA

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761) and 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: East Branch Dam is on the East Branch of the Clarion River, 7.5 miles upstream from its junction with the West Branch of the Clarion River at Johnsonburg, PA. The reservoir is located entirely in Elk County PA. East Branch Clarion River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 147,100
CONFERENCE AMOUNT FOR FY2010: T: $ 1,448,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 1,671,000 **T**: $ 1,671,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,460,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $198,000 – Operate and maintain recreation facilities for camping, picnicing on interprative trail, and boating access for fishing and water skiing.

Hydro: N/A

ES: $13,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: East Lynn Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: East Lynn Lake is located on the East Fork of Twelvepole Creek, 10 miles above the mouth of East Fork and 42 miles above the mouth of Twelvepole Creek. The lake is impounded by a rolled earth fill dam with an uncontrolled saddle spillway. The top length of the dam is 652 feet. The dam was completed in April 1971.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,623,000
CONFERENCE FOR FY 2010: T: $2,059,000
BUDGET FOR FY 2011: M: $0 **O**: $2,215,000 **T**: $2,215,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,412,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $723,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $80,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: East Lynn Lake has prevented over $84,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 431,676.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Elkins, WV

AUTHORIZATION: Section 4 of the Flood Control Act of 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The project is located on the Tygart River at Elkins, Randolph County, West Virginia. Elkins, WV is a local flood protection project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 15,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 15,000 **T**: $ 15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $15,000 - Assure safety, structure, integrity and operational adequacy through inspection of the project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Elkins, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Erie Harbor, PA

AUTHORIZATION: River & Harbor Acts of 1824, 1899, 1910 (P.L. 60-317), 1922 (P.L. 66-353), 1935 (P.L. 74-409), 1954 (P.L. 83-780), 1960 (P.L. 86-645) and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Erie Harbor is a deep draft commercial harbor, located on Lake Erie in the city of Erie, Erie County, PA, whose authorized depths are 29 feet in the entrance channel and 25-28 feet in the harbor.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $527,000
BUDGET FOR FY2011: M: $1,345,000 **O:** $44,000 **T:** $1,389,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,389,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys and dredging. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 125,000 cubic yards of sediment from the harbor thereby improving the availability and reliability of the navigation channels and providing approximately $1,800,000 in transportation cost savings to commercial shippers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is the 132nd leading U.S. port with 1,250,000 tons of material shipped or received in 2007 ranking 32nd among the Great Lakes ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Erie-Western Pennsylvania Port Authority, U.S. Coast Guard and the Erie Sand and Gravel Company. Bulk commodities that pass through Erie Harbor generate approximately $12,444,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fairport Harbor, OH

AUTHORIZATION: River & Harbor Acts of 1825, 1896, 1905, 1919, 1927, 1930, 1935, 1937 and 1946

LOCATION AND DESCRIPTION: Fairport Harbor is a deep draft commercial harbor located on Lake Erie in the city of Fairport, Lake County, OH, whose authorized depths are 25 feet in the Outer Harbor and 21-24 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $987,094
CONFERENCE AMOUNT FOR FY2010: T: $0
BUDGET FOR FY2011: M: $1,500,000 **O:** $72,000 **T:** $1,572,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,572,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys and dredging. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 140,000 cubic yards of sediment from the harbor thereby improving the availability and reliability of the navigation channels and providing approximately $4,000,000 in transportation cost savings to commercial shippers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Fairport Harbor is the 117th leading U.S. port with 2,100,000 tons of material shipped or received in 2007. It is ranked 27th among the Great Lakes ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Fairport Harbor Port Authority, U.S. Coast Guard, Carmuse Lime, Morton International, Incorporated, Northeastern Road Improvement Company, Osborne Concrete & Stone, and Sidley Stone Products. Bulk commodities that pass through Fairport Harbor generate approximately $34,195,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fishtrap Lake, KY

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Fishtrap Lake is located in Pike County, KY, on the Levisa Fork of the Big Sandy River. It is 103.3 miles above the mouth of the Levisa Fork and 130.1 miles above the mouth of the Big Sandy River. The lake is impounded by a rolled rock dam with impervious core and a controlled spillway. The top length of the dam is 1,100 feet. The dam was completed in February 1969.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,470,000
CONFERENCE FOR FY 2010: T: $2,063,000
BUDGET FOR FY 2011: M: $0 **O**: $1,942,000 **T**: $1,942,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,413,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $483,000 –Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $46,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Fishtrap Lake has prevented over $605,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 495,798.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fox River, WI

AUTHORIZATION: Rivers and Harbors Act of 1886 (24 Stat. 310), as amended: and Section 332, WRDA 1992 (PL 102-580)

LOCATION AND DESCRIPTION: The project is located on the Lower Fox River from Lake Winnebago to Green Bay, Wisconsin. The project includes nine dams consisting of concrete gravity spillways and tainter gate structures operated by lift machinery. The project is primarily operated for flood control.

RECOVERY ACT ALLOCATIONS TO DATE: T: $8,689,032
CONFERENCE AMOUNT FOR FY 2010: T: $4,421,000
BUDGET FOR FY 2011: M: $750,000 **O**: $1,652,000 **T**: $2,402,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $2,350,000 – Funding provides for collection of water level data, routine operation of the dams to regulate pools for multiple uses (flood risk management, and supply of water to private hydropower, paper mills and municipal uses), completion of critical maintenance actions including replacement of deteriorated dam service walkways, removal of large vegetation from dam embankments, and design of repairs to specific dam piers. Without continued dam operations the risk of flooding increases, the State owned locks cannot operate and power plants/paper mills would lose pool and not be able to function. There are a total of 24 paper and pulp plants located along the Fox River that draw water from the river for use in processing and power production.

Rec: N/A

Hydro: N/A

ES: $52,000 – Funding provides for annual activities that are associated with compliance with State and Federal historic preservation requirements, including investigation and coordination of operation and maintenance activities and document preservation.

WS: N/A

OTHER INFORMATION: The project originally included 17 navigation locks which were transferred to the State of Wisconsin in FY2004. The Fox River Navigational System Authority is the state entity responsible for restoration, maintenance and operation of the transferred Fox River lock system. A Memorandum of Agreement (MOA) signed in 2000 between the Department of the Army and the State of Wisconsin for transfer of the locks provides for the Government to provide funding to the State to match State funding for repairs to the locks. As of the end of FY 2009, a balance of $4,041,094 remained to be provided to the State (amount identified in the MOA indexed to current cost levels less funding provided to date).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Grand Haven Harbor and Grand River, MI

AUTHORIZATION: Rivers and Harbors Act of 1866, as amended

LOCATION AND DESCRIPTION: The harbor is located on the east shore of Lake Michigan, 108 miles northeast of Chicago, IL, and 23 miles north of Holland, MI at the mouth of the Grand River. Grand Haven Harbor is a deep draft commercial port with the primary commodities being coal and aggregates. Approximately 40,000 cubic yards are dredged from the outer channel each year while the inner channel requires dredging on a two to four year cycle, and was last dredged in 2009. The outer harbor material is placed on the beach and the Inner harbor material requires upland placement.

RECOVERY ACT ALLOCATIONS TO DATE: T: $2,527,773
CONFERENCE AMOUNT FOR FY 2010: T: $779,000
BUDGET FOR FY 2011: M: $500,000 **O**: $222,000 **T**: $722,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $702,000 – Funding provides for routine operations and maintenance for navigation; project condition surveys; and maintenance dredging by contract to provide minimum function at the most critical portions of this Federal channel. These funds will be used to maintain this important Great Lakes port. Loss of available channel depth due to annual shoaling typically averages between four and five feet which results in increased transportation costs of between $3.6 million and $5.1million.

F&CSDR: N/A

Rec: $10,000 – Funding provides for improved monitoring of project use and enhancing access and educational opportunities for project visitors.

Hydro: N/A

ES: $10,000 – Funding provides for maintaining compliance with the National Historic Preservation Act.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Grayson Lake, KY

AUTHORIZATION: Section 203 of Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Grayson Lake is located in Carter County KY, on the Little Sandy River, 51.2 miles above the mouth of the stream. The dam is earth and random rockfill with central impervious core. The spillway is uncontrolled, broad crested, saddle spillway at left abutment.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $631,000
CONFERENCE FOR FY 2010: T: $1,624,000
BUDGET FOR FY 2011: M: $0 **O**: $1,434,000 **T**: $1,434,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $904,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $472,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $28,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $30,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 1.5 million gallons per day of water supply for the health, safety and economy of approximately 10,000 citizens in Carter and Elliott Counties, KY.

OTHER INFORMATION: Grayson Lake has prevented over $109,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,051,473.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Green & Barren Rivers, KY

AUTHORIZATION: Rivers & Harbors Appropriation Act of 1888; 1909 Act (P.L. 60-317)

LOCATION AND DESCRIPTION: Six lock and dams on the Green River and one on the Barren River were constructed under the project authority, however only two remain operational for navigation. Green River Lock and Dam No. 1 is located on the Green River at river mile 9.1, at Spotsville, Kentucky. The project consists of a fixed crest dam, which is navigable at high river stages, and a single 84' x 600' lock chamber. Green River Lock and Dam No. 2 is located on the Green River at river mile 63.1, at Calhoun, Kentucky. The project consists of a fixed crest dam, which is navigable at high river stages, and a single 84' x 600' lock chamber.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $600,116
CONFERENCE AMOUNT FOR FY2010: T: $1,787,000
BUDGET FOR FY2011: M: $0 **O**: $2,100,000 **T**: $2,100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $2,082,000 – Funding provides for basic operation and daily maintenance of the two Green River projects.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: $18,000 – Funding provides for the performance of the water quality analysis and endangered species studies required for navigable waters.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Green Bay Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1866

LOCATION AND DESCRIPTION: Located at the mouth of the Fox River at the head of Green Bay in Lake Michigan. Green Bay Harbor is a deep draft commercial harbor of over 14 miles of maintained channel. Dredged material is currently placed in the Bay Port disposal facility under an agreement with the Brown County Port Authority, since the Green Bay Confined Disposal Facility at Renard Island is currently at capacity.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $6,222,000
BUDGET FOR FY 2011: M: $2,348,000 **O**: $350,000 **T**: $2,698,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,250,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. Shoaling results in a need to remove upwards of 190,000 cubic yards of material annually in order to maintain channel functionality and avoid increased transportation costs.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Green River Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Green River Lake lies in Taylor and Adair counties. The lake is located in south central Kentucky. It is approximately 90 miles south-southeast of Louisville and about 8 miles south of Campbellsville. The dam site is at mile 305.7 on Green River. The dam is earth and rockfill with gate controlled outlet works and uncontrolled open spillway and is 143 ft high and 2,350 ft long. The project also includes an earth filled dike, 105 ft high and 1,952 ft long. It is the site of a class "B" visitor center. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,776,120
CONFERENCE AMOUNT FOR FY2010: T: $2,093,000
BUDGET FOR FY2011: M: $11,000 **O:** $2,231,000 **T:** $2,242,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,452,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $619,000 – Funding provides for routine operation and daily maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $159,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $12,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $6.485M, FY2008 recreation visits were 1.2M, and FY2008 visitor expenditures were $34.75M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Holland Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1852

LOCATION AND DESCRIPTION: Holland Harbor is located on the east shore of Lake Michigan 95 miles northeast of Chicago, IL and 23 miles south of Grand Haven, MI. It is a deep draft commercial harbor with project depths of 23 feet in the entrance and 21 feet in the inner channel and Lake Macatawa. There are over 5,500 feet of structures including breakwaters, piers, and revetments and over six miles of maintained channel. Maintenance dredging is required on an annual basis, with the harbor last dredged in 2009. Outer harbor dredged material is used for beach nourishment.

RECOVERY ACT ALLOCATIONS TO DATE: T: $116,457
CONFERENCE AMOUNT FOR FY 2010: T: $2,044,000
BUDGET FOR FY 2011: M: $500,000 **O**: $155,000 **T**: $655,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $645,000 – Funding provides for routine operations and maintenance for navigation including project condition surveys and maintenance dredging by contract to provide minimum functional depth at the most critical portions of this Federal channel. Loss of available channel depth due to annual shoaling typically averages between four and five feet which results in increased transportation costs of between $738,000 and $1million.

F&CSDR: N/A

Rec: $10,000 – Funding provides for improved monitoring of project use and enhancing access and educational opportunities for project visitors.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Indiana Harbor, IN

AUTHORIZATION: Rivers and Harbors Act of 1910, 1913, 1919, 1922, 1930, 1935, 1937 and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Indiana Harbor is in northwestern Indiana, on the southwest shore of Lake Michigan in Lake County, 19 miles southeast of Chicago Harbor. The project consists of a north breakwater (1,120 feet of rubblemound structure); an easterly breakwater (2,524 feet rubblemound structure); an approach channel (29 feet deep and 800 feet wide); an anchorage and maneuver basin (28 feet deep); a harbor entrance (27 feet deep and 280 feet wide); and a main canal (22 feet deep).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 2,214,000
BUDGET FOR FY2011: M: $2,320,000 **O**: $3,380,000 **T**: $5,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $8,200,000 – $170,000 funds regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to customers. $3,210,000 funds continual air-monitoring by United States Geological Survey and the Department of Enery National Laboratory at Argonne, inward gradient pumping, water treatment, site maintenance and security. $4,820,000 funds the first dredging contract within Indiana Harbor, and begins the restoration of Federal navigation channel dimensions; dredged material will be placed in the Indiana Harbor Confined Disposal Facility.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The manner of operation of the Confined Disposal Facility, and the handling of the contaminated dredged material, is of great concern to the community, regulatory agencies and occupational health agencies.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: J Percy Priest Dam & Reservoir, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: J Percy Priest Dam & Reservoir, TN is located on the Stones River, 6.8 miles above its confluence with Cumberland River (mile 205.9), Davidson County, TN. The project consists of a combination earth and concrete gravity dam, a hydropower plant and a flood storage reservoir with recreation and stewardship areas

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $4,610,840
CONFERENCE FOR FY 2010: T: $4,579,000
BUDGET FOR FY 2011: M: $260,000 **O**: $4,348,000 **T**: $4,608,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $656,000 - funding provides for routine operations & maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the river.

Rec: $3,028,000 - of which $2,220,000 provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds and $808,000 funding provides for joint costs associated with operation of dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: $682,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of dam. Funds would allow power plant and dam to accomplish missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: $180,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 33,000 acres of project lands and water.

WS: $62,000 – A water supply reallocation study is currently underway per terms of settlement agreement with the town of Smyrna. System wide operation of Cumberland River requires maintaining a water supply data base. Existing water supply agreements require determining the O&M costs each fiscal year and coordinating with users for payment.

OTHER INFORMATION: Hydropower plant generates 75,000 MWH of energy annually, which is enough supply for 6,250 homes. J. Percy Priest ranks #6 in USACE for recreation with 6,700,000 project visits in FY07 with an associated $109,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: J. Edward Roush Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: J. Edward Roush Lake is located on the Wabash River in northeastern Indiana about 20 miles southwest of Ft. Wayne and 80 miles northeast of Indianapolis. The dam site is at mile 411.4 of the Wabash River and lies in Huntington and Wells counties. The dam is rolled earth fill with a concrete center section containing the emergency spillway with three crest gates and has a Corps operated and maintained levee and pump plant that protects the town of Markle, approximately seven miles upstream from the dam. The dam is 91 ft high and 6,500 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $60,654
CONFERENCE AMOUNT FOR FY2010: T: $897,000
BUDGET FOR FY2011: M: $703,000 **O**: $1,090,000 **T**: $1,793,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,697,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $43,000 – Funding provides for routine operation and daily maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $53,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $24.282M, FY2008 recreation visits were 280K, and FY2008 visitor expenditures were $5.51M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: John W. Flannagan Dam and Reservoir, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: John W. Flannagan Dam and Reservoir, is located in Dickenson County, VA and situated on the Pound River, a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River. It is 1.8 miles above the mouth of Pound River and 150.0 miles above the mouth of the Big Sandy River. The lake is impounded by a rockfill dam with a central impervious core, with a maximum height of 250 feet, and a top length of 916 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,017,000
CONFERENCE FOR FY 2010: T: $1,999,000
BUDGET FOR FY 2011: M: $0 **O**: $2,230,000 **T**: $2,230,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,440,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $716,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $44,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $30,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 10 million gallons per day of water supply for the health, safety and economy of approximately 30,000 citizens in Dickenson, Wise, and Buchanan Counties, Virginia.

OTHER INFORMATION: John W. Flannagan Dam and Reservoir has prevented over $284,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 471,279.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Johnstown, PA

AUTHORIZATION: Flood Control Acts of 1936 (P.L. 74-738) and 1937

LOCATION AND DESCRIPTION: The project is located along the Conemaugh River, Little Conemaugh River, and Stonycreek River at Johnstown, in Cambria County, PA. Johnstown, PA is a Local Flood Protection Project. The major rehabilitation of the nine mile long local flood protection project along the three rivers in Johnstown, PA was authorized in 1991. The approved rehabilitation report included operation and maintenance funded repairs. These repairs mainly consist of sediment removal, channel clearing, concrete slope lining and toe repairs, and repairs to safety railing.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 34,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 36,000 **T**: $ 36,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $36,000 - Assure safety, structure, integrity and operational adequacy.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kanawha River Locks and Dams, WV

AUTHORIZATION: River and Harbor Acts of 1930 (P.L. 71-520) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Kanawha River Locks and Dams is located in WV, begins at the mouth of the Kanawha River and encompasses 90.6 miles upstream of its confluence with the Ohio River. The Locks and Dams located along this stretch include London, Marmet and Winfield.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,929,000
CONFERENCE FOR FY 2010: T: $13,389,000
BUDGET FOR FY 2011: M: $2,760,000 **O**: $7,031,000 **T**: $9,791,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $9,634,000 –Funding provides for routine operations and maintenance for navigation; critical fleet maintenance to accomplish the replacement of the Marmet Dam roller gate rim gear bolts, and dredging to maintain the navigation channel. These efforts will ensure that failed and inadequate components are restored and maintained at an adequate level of operation.

F&CSDR: N/A

Rec: $143,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $14,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: The 5 year average tonnage of commodities transported on the Kanawha River Locks and Dams exceeds 20,000,000. Project visitation for FY 2009 totaled 258,746.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Kanawha River Locks and Dams, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kentucky River, KY

AUTHORIZATION: Rivers and Harbors Act of 1879.

LOCATION AND DESCRIPTION: Located in east central Kentucky, the authorization provided for 14 locks and fixed dams on the Kentucky River for navigation from the confluence with the Ohio River at Carrollton, Kentucky to Beattyville, Kentucky. Kentucky Locks 5-14 have been transferred from the Corps to the Commonwealth of Kentucky. Kentucky Locks 1-4 are leased to the Commonwealth of Kentucky for Public Park and Recreation.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $10,000
BUDGET FOR FY2011: M: $0 **O:** $10,000 **T:** $10,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $10,000 – Funding provides for annual review of the Comonwealth's lease and to respond to requests and questions from the Commonwealth. The Navigation line item covers the cost for Real Estate Division to process the transfer of the property to the Commonwealth of Kentucky.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Since the locks are no longer operated by the Corps they are considered excess property. A disposition study is planned to initiate transfer of the 4 remaining locks if and when funding is made available.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kewaunee Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1881

LOCATION AND DESCRIPTION: Kewaunee Harbor is a deep draft commercial harbor located on the western shore of Lake Michigan at the mouth of the Kewaunee River, about 100 miles north of Milwaukee, WI, and 27 miles south of Sturgeon Bay, WI. Project provides for commercial navigation with 5,500 feet of maintained channels. Project also includes 6,500 feet of navigation structures, including breakwaters and piers.

RECOVERY ACT ALLOCATIONS TO DATE: T: $1,402,030
CONFERENCE AMOUNT FOR FY 2010: T: $424,000
BUDGET FOR FY 2011: M: $0 **O**: $8,000 **T**: $8,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: $8,000 – Funding provides for maintaining compliance with the National Historic Preservation Act.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Keweenaw Waterway, MI

AUTHORIZATION: Rivers and Harbors Act of 1865

LOCATION AND DESCRIPTION: The Keweenaw Waterway is located in the Keweenaw Peninsula of the upper peninsula of Michigan, between Keweenaw Bay and Lake Superior. The west, upper entrance is 169 miles east of Duluth, MN and the east, lower entrance is approximately 60 miles west of Marquette, MI. It is a deep draft commercial waterway with a project depth of 32 feet in the upper entrance channel, 28 feet in the lower entrance channel, and 25 feet in the interior channel. There are over 24,300 feet of structures including breakwaters, piers, and revetments and over 18 miles of maintained channels.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $37,000
BUDGET FOR FY 2011: M: $12,000 **O**: $0 **T**: $12,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: N/A

Rec: $12,000 – Funding provides for maintenance of recreational features of this project, thereby ensuring access to parking areas and trails.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kinzua Dam and Allegheny Reservoir, PA

AUTHORIZATION: Flood Control Act of 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938 (P.L. 75-761) and 18 August 1941

LOCATION AND DESCRIPTION: Kinzua Dam is located on the Allegheny River in Warren County, PA, approximately 198 miles above the mouth of the river at Pittsburgh, PA. The reservoir is located in Warren and McKean Counties, PA, and Cattaraugus County, NY Kinzua Dam and Allegheny Reservoir, PA is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 270,999
CONFERENCE AMOUNT FOR FY2010: T: $ 1,272,000
BUDGET FOR FY2011: M: $ 0 **O**: $1,469,000 **T**: $ 1,469,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,202,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $247,000 – Operate and maintain recreation facilities; the lake has nine boat ramps, numerous campgrounds, extensive trails, picnic areas, and a visitor information center.

Hydro: N/A

ES: $20,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River District: Pittsburgh

Kinzua Dam and Allegheny
Reservoir, PA Y

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lake Michigan Diversion, IL

AUTHORIZATION: Water Resources Development Act 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Lake Michigan Diversion is in Illinois on the southwest shore of Lake Michigan in Cook County, within the corporate limits of the City of Chicago. Concern by Great Lakes States about the diversions of Lake Michigan water out of the basin led to several U.S. Supreme Court Decrees. The latest, modified in 1980, specifies the allowable diversion at 3,200 cubic feet per second. The work on this project involves flow measurement near Lemont, hydrologic modeling of the basin, hydraulic modeling of the combined sewer and Tunnel and Reservoir Plan systems and diversion accounting computations.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 649,000
BUDGET FOR FY2011: M: $0 **O**: $710,000 **T**: $710,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $710,000 - $140,000 funds Lake Michigan water diversion data analysis, reporting efforts, and diversion accounting modeling activities. $570,000 funds Lake Michigan water diversion data collection and flow measurements.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Beginning with the State of Illinois' reversal of the flow of the Chicago River in 1900, the other Great Lakes states (Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin) have been concerned about the diversions of Lake Michigan water out of the basin. Their concern has led to litigation and a series of U.S. Supreme Court Decrees, which have regulated the diversion since 1925. The 1967 Decree, modified in 1980, specifies the allowable diversion at 3,200 cubic feet per second. The Corps of Engineers, who is responsible for measuring the diversion, reported during recent years that Illinois had been diverting in excess of the amount provided in the Decree. Measurements are presently taken on the Chicago Sanitary and Ship Canal near Lemont, which is approximately six miles upstream from Romeoville. In accordance with the U.S. Supreme Court Decree modified in 1980, and WRDA 1986, the District continues to hold the responsibilities of diversion accounting computations and diversion certification.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Laurel River Lake, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Laurel River Lake is located in southeastern Kentucky, near Corbin, KY. Project consists of a rock fill dam, hydropower plant and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $940,000
CONFERENCE FOR FY 2010: T: $1,831,000
BUDGET FOR FY 2011: M: $66,000: **O**: $1,580,000 **T**: $1,646,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: N/A

Rec: $429,000 total - of which $178,000 funding provides critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, and day use areas and $251,000 funding provides for joint costs associated with operation of the dam structure, spillway gates, intake and outlet works for reservoir regulation; removal and disposal of trash and debris on or in vicinity of dam structures; dam safety/failure training and contingency plans, etc.

Hydro: $1,075,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower's part of joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish assigned missions of providing low cost reliable electric power by maintaining high availability and peak availability and to maintain control of the river.

ES: $82,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 1,200 acres of project lands and water.

WS: $60,000 - Existing water supply agreements require determining the O&M costs each fiscal year and coordinating with users for payment. Increased costs are due to instances of non-compliance.

OTHER INFORMATION: Hydropower plant generates 66,000 MWH of energy annually, which is enough supply for 5,500 homes. Laurel River Lake had 445,000 project visits in FY07 with an associated $6,800,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Little Sodus Bay Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1852, 1866, 1871, 1881 (21 Stat. 468) and 1902

LOCATION AND DESCRIPTION: Little Sodus Bay Harbor is a deep draft recreational harbor, located on Lake Erie, in the town of Fair Haven, Cayuga County, NY, whose authorized depth is 15.5 feet in the entrance channel. The current maintenance depth is 8 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $5,000
BUDGET FOR FY2011: M: $0 **O:** $6,000 **T:** $6,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: N/A

Rec: $6,000 – Funding provides for public visitation tracking at Little Sodus Bay Harbor. These funds will be used to monitor and evaluate the public use of the Little Sodus Bay Harbor East Pier. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This Harbor of Refuge is protected by east and west piers and an east breakwater with a total length of 5,237 feet. Major stakeholders include commercial fishing interests and the recreational boating community. Navigation structures with recreation features (i.e. walkway) are often heavily used by the public for a variety of reasons, including: access to the waterfront, fishing, and/or location next to an existing public park. The east pier is connected to land by the east breakwater and can be accessed from the adjacent Fair Haven Beach State Park.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lorain Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L.60-317), 1917 (P.L. 64-108), 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1945 (P.L. 79-14), 1960 (P.L. 86-645) and 1965 (P.L. 89-298). WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: Lorain Harbor is a deep draft commercial harbor whose authorized depths are 28 feet in the outer harbor and 27 feet in the river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $535,000
CONFERENCE AMOUNT FOR FY2010: T: $836,000
BUDGET FOR FY2011: M: $443,000 **O:** $0 **T:** $443.000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $443,000 - Funding provides for maintenance of the confined disposal facility (CDF) which includes design and construction to raise the perimeter berm approximately 3 feet. These funds would improve navigation performance by extending the life of the CDF until the new upland disposal site becomes available in 2014. This is third of three scheduled berm raisings. Funding will provide critical path measures to ensure uninterrupted dredging in the harbor.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Lorain Harbor is the 99th leading U.S. port with 3,000,000 tons of material shipped or received in 2007. It is ranked 24th among the Great Lakes ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Project features include over 2.5 miles of breakwater structures, 60 acre outer harbor and 2.6 miles of Federal channel on the Black River, and a confined disposal facility (CDF) that is located at the eastern end of the harbor. Major stakeholders include the Lorain Port Authority, U.S. Coast Guard, Amcor Marine, American Metal Chemical Corp., Gold Bond/U.S. Gypsum, Jonick Dock & Terminal, Lorain Tubular Co., National Gypsum Co., Republic Technologies Int., and terminal Ready Mix, Inc. Bulk commodities that pass through Lorain Harbor generate approximately $37,930,000 annually in direct revenue.

Division: Great Lakes and Ohio River District: Buffalo Lorain Harbor, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Loyalhanna Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Loyalhanna Dam is on Loyalhanna Creek, 4.75 miles above its junction with the Conemaugh River at Saltsburg, PA, forming the Kiskiminetas River. The reservoir is located entirely in Westmoreland County, PA. Loyalhanna Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 123,000
CONFERENCE AMOUNT FOR FY2010: T: $ 1,279,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 1,460,000 **T**: $ 1,460,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,246,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $154,000 – Operate and maintain recreation facilities, including a unique self-guided boating trail, picnic area, campgrounds at Bush Run and Kiski areas, and two boat launching ramps.

Hydro: N/A

ES: $60,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ludington Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1867, as amended

LOCATION AND DESCRIPTION: Ludington Harbor is located on the east shore of Lake Michigan, 156 miles northeast of Chicago, IL and 67 miles north of Grand Haven, MI. It is a deep draft commercial harbor with a project depth of 27 to 29 feet in the entrance channel and 18 feet deep in the turning basins. Ludington Harbor has over 8,700 feet of structures including breakwaters, piers and revetments, and over one mile of navigation channel. Maintenance dredging is required on a two to three year cycle, and was last dredged in 2009.

RECOVERY ACT ALLOCATIONS TO DATE: T: $931,449
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $1,317,000 **O**: $102,000 **T**: $1,419,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $552,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and maintenance dredging by contract of 60,000 cubic yards of critical shoals to meet minimum safe vessel draft. Annual shoaling results in loss of available channel depth and increased transportation costs.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mahoning Creek Lake, PA

AUTHORIZATION: Flood Control Act of 22 June 1936 (P.L. 74-738), as amended by the Flood Control Act of 28 June 1938(P.L. 75-761)

LOCATION AND DESCRIPTION: Mahoning Dam is on Mahoning Creek in Armstrong County, PA 22.9 miles upstream from the junction of the creek and the Allegheny River. The reservoir is located in Armstrong, Indiana and Jefferson Counties, PA. Mahoning Creek Lake is a multipurpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 3,052,000
CONFERENCE AMOUNT FOR FY2010: T: $ 1,222,000
BUDGET FOR FY2011: M: $ 0 **O**: $1,326,000 **T**: $ 1,326,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,233,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $78,000 - Operate and maintain recreation facilities, inlcuding picnic areas, trails, boat launch ramps, and campsites.

Hydro: N/A

ES: $15,000 – Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

Division: Great Lakes and Ohio River District: Pittsburgh Mahoning Creek Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Manistee Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1867, as amended

LOCATION AND DESCRIPTION: Manistee Harbor is located on the east shore of Lake Michigan, 179 miles northeast of Chicago, IL and 26 miles north of Ludington, MI. It is a deep draft commercial harbor with project depths of 25 feet in the entrance and 23 feet in the river channel. It has over 6,000 feet of structures including breakwaters, piers, and revetments and includes two miles of maintained channel. Maintenance dredging is required on a two to three year cycle, and is scheduled to be dredged in 2010.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $230,000 **O**: $22,000 **T**: $252,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $22,000 – Funding provides for routine operations and maintenance for navigation to include project condition surveys. These funds will be used to verify existing navigation channel depths and notify navigation interests of any critical shoals within the channels.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Marquette Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1867, as amended

LOCATION AND DESCRIPTION: Marquette Harbor is located in Marquette Bay on the south shore of Lake Superior, 160 miles west of Sault Ste. Marie, MI and 265 miles east of Duluth, MN. It is a deep draft commercial harbor with a project depth of 27 feet in the entrance channel and inner basins. It has over 4,500 feet of breakwater structure and over one-half mile of navigation channel. Maintenance dredging is required very infrequently, with the harbor last dredged in 1978.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $230,000 **O**: $0 **T**: $230,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $230,000 – Funding provides for routine operations and maintenance for navigation including repairs to the breakwaters by Government floating plant. These repairs will protect the structure from further deterioration and failure. Deteriorated wave condition due to breakwater failure results in unsafe operating conditions and/or reduced vessel loading to account for potential wave impacts within the harbor.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Martins Fork Lake, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Martins Fork Lake is located in southeastern Kentucky, Harlan County, near the City of Harlan. The project consists of a concrete gravity dam and a flood storage reservoir with recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $100,000
CONFERENCE FOR FY 2010: T: $774,000
BUDGET FOR FY 2011: M: $285,000 **O**: $803,000 **T**: $1,088,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $963,000 – funding provides for routine operations and maintenance of the dam.

Rec: $15,000 - funding provides for the minimum oversight of existing recreation out-grants and fulfills Corps requirements for visitor health and safety.

Hydro: N/A

ES: $105,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 1,300 acres to project lands and water. Failure to fund will result in immediate degradation and loss of natural resources, including forests, water quality, shoreline habitat, and aesthetic value.

WS: $5,000 - funding provides for evaluating all new intake requests' impacts.

OTHER INFORMATION: Project prevents a major portion of average annual flood losses at Harlan and results in significant stage reductions with related benefits along rural reaches and to other urban areas downstream.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Massillon Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Massillon Local Protection Project is located in Stark County, OH on the Tuscarawas River. The levee protects the City of Massillon from flooding along the Tuscarawas River. Maintenance of the levee is the joint responsibility of the City of Massillon and the United States Army Corps of Engineers. Annual mowing and dam inspections are required.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $680,000
CONFERENCE FOR FY 2010: T: $37,000
BUDGET FOR FY 2011: M: $0 **O**: $21,000 **T**: $21,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $21,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to reduce the risk of failure and allow for a thorough inspection to be conducted.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Massillon Local Protection Project has prevented over $5,000,000 in damages over the course of its operation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Michael J. Kirwan Dam and Reservoir, OH

AUTHORIZATION: Flood control Act of 3 July 1958 (P.L. 85-500), with local cooperation requirements modified by the Flood Control Act of July 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Michael J. Kirwan Dam is located on the West Branch of the Mahoning River about 12.0 miles above the junction of the branch and the Mahoning River at Newton Falls, OH. The reservoir is located entirely within Portage County, OH. MJ Kirwan Dam and Reservoir is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 335,000
CONFERENCE AMOUNT FOR FY2010: T: $1,035,000
BUDGET FOR FY2011: M: $ 117,000 **O**: $ 1,286,000 **T**: $ 1,403,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,309,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete repairs to restore and maintain the operability of the dam gates.

Rec: $50,000 - Operate and maintain recreation facilities that enable picnicking, boating, camping, fishing, and hiking.

Hydro: N/A

ES: $44,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Middlesboro Cumberland River, KY

AUTHORIZATION: 1936 Flood Control Act (PL 74-53)

LOCATION AND DESCRIPTION: Middlesboro Cumberland River, KY is a local flood risk management project composed of a canal and levee system located at Middlesboro, KY.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $639,470
CONFERENCE FOR FY 2010: T: $107,000
BUDGET FOR FY 2011: M: $20,000 **O**: $93,000 **T**: $113,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $113,000 - funding provides for minimal costs to meet legal requirements for environmental compliance and safety, routine mowing and vegetation control of levee, annual costs for necessary operations of project facilities and equipment to meet flood damage reduction measure of 100% availability.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Located at Middlesboro, KY, on Yellow Creek, a tributary entering the Cumberland River about 660 miles above its mouth. Project consists of a canal and levee system about 4 miles in length which diverts the headwaters of Yellow Creek around the city.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Milwaukee Harbor, WI

AUTHORIZATION: Rivers and Harbors Act of 1935, as amended

LOCATION AND DESCRIPTION: Milwaukee Harbor is a deep draft commercial harbor located in Wisconsin, on the west shore of Lake Michigan, approximately 85 miles north of Chicago, IL. The project includes both lake approach channels and river channels with depths varying from 27 to 30 feet. Maintenance dredging is required on a three to four year cycle and was last dredged in 2008. Dredged material is placed in the Milwaukee Disposal Facility. Commercial commodities include petroleum and petroleum products and manufactured equipment. The project also includes over 21,000 feet of structures, including breakwaters, piers and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $1,465,000 **O**: $207,000 **T**: $1,672,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,672,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, maintenance dredging by contract of 60,000 cubic yards of critical shoals to meet minimum safe vessel draft; and repairs to the breakwaters by Government floating plant to protect the structure from further deterioration and failure. Milwaukee harbor handles over 4 million tons annually, and a loss of channel depth due to annual shoaling or deteriorated wave climate in the harbor results in increased transportation costs and unsafe navigation conditions.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mississinewa Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Mississinewa Lake is located in north central Indiana about seven miles southeast of Peru and 65 miles northeast of Indianapolis. The dam site is at mile 7.1 on the Mississinewa River, a tributary of the Wabash River. The project lies in Miami, Wabash and Grant counties. The dam is earthfill with gate controlled outlet works and uncontrolled open spillway and is 140 ft high and 8,000 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $51,433
CONFERENCE AMOUNT FOR FY2010: T: $926,000
BUDGET FOR FY2011: M: $0 **O:** $1,147,000 **T:** $1,147,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,018,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $54,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $75,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $47.402M, FY2008 recreation visits were 513K, and FY2008 visitor expenditures were $12.94M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Monongahela River, PA and WV

AUTHORIZATION: Rivers and Harbors Act, 1902, 1905, 1909, 1922, 1930 and 1950; WRDA 1986 and 1992; Supplemental Appropriations Act 1985

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Monongahela River for the entire 128.7 miles of river from just above Fairmont, WV to the Point at Pittsburgh, PA. The nine navigation locks and dams are Braddock, Grays Landing, Hildebrand, Maxwell, Morgantown, Opekiska, Point Marion and Locks and Dam 3 and 4.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 3,454,094
CONFERENCE AMOUNT FOR FY2010: T: $15,926,000
BUDGET FOR FY2011: M: $ 2,899,000 **O**: $ 12,962,000 **T**: $ 15,861,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $15,512,000 - Operate and maintain nine navigation locks and dams. Renovate filling valve in the main lock chamber at Braddock. Perform initial lock dewatering to inspect and repair gates, valves, and floodway bulkhead at Grays Landing. At Morgantown repair the dam gates' skin plates where holes have developed. Project provides approximately 129 miles of navigable river including nine navigation facilities.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Commercial and recreational navigation is provided via nine locks and dams within the 128.7 mile reach of river. 28,000,000 tons of cargo were serviced by the Monongahela navigation system in 2008.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Monroe Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1835, as amended

LOCATION AND DESCRIPTION: Monroe Harbor is located on the lower reach of the Raisin River, which empties into Lake Erie, 36 miles south of Detroit, MI. It is a deep draft commercial harbor with authorized depths of 21 feet in Lake Erie to the turning basin, which has an 18 foot depth. It has approximately 28,000 feet of maintained Federal channel. Maintenance dredging is required on a two to three year cycle, with dredging last completed in 2009. Dredged material is placed in Sterling State Park Confined Disposal Facility, located just north of the harbor.

RECOVERY ACT ALLOCATIONS TO DATE: T: $500,000
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $1,300,000 **O**: $40,000 **T:** $1,340,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,340,000 – Funding provides for routine operations and maintenance for navigation; project condition surveys; maintenance dredging by contract of 60,000 cubic yards of critical shoals to meet minimum safe vessel draft; and 15,000 cubic yards of critical obstruction removal by Government plant. Annual shoaling can result in a loss of available channel depth between two and three feet which results in increased transportation costs of between $1.5 million and $2.4 million. The presence of larger stone obstructions within the turning basin has prohibited maintaining the depth of the turning basin. As a result, commercial vessels have to routinely back out of the harbor posing additional safety concerns. Removal of the obstructions will allow for safer and more efficient vessel operations.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Monroe Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Monroe Lake lies mostly in Monroe County with portions in Brown and Jackson Counties and combines the North, Middle, and South Forks of Salt Creek in south central Indiana. The dam is located about 26 miles from Salt Creek's confluence with the East Fork of the White River and is about 10 miles south of Bloomington, Indiana. The dam is earth core and rock shell with gate-controlled outlet works and uncontrolled open spillway and is 93 ft high and 1,350 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $111,239
CONFERENCE AMOUNT FOR FY2010: T: $1,046,000
BUDGET FOR FY2011: M: $691,000 **O**: $1,208,000 **T**: $1,899,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,718,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $41,000 – Funding provides for routine operation and daily maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $134,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $4.256M, FY2008 recreation visits were 882K, and FY2008 visitor expenditures were $25.78M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mosquito Creek Lake, OH

AUTHORIZATION: Flood Control Act approved 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Mosquito Dam is on Mosquito Creek, 12.6 miles upstream from its junction with the Mahoning River at Niles, OH. The reservoir is located entirely in Trumbull County, OH. Mosquito Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 96,050
CONFERENCE AMOUNT FOR FY2010: T: $ 946,000
BUDGET FOR FY2011: M: $ 199,000 **O**: $ 1,214,000 **T**: $ 1,413,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,262,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete critical maintenance to seal the stilling basin wall joints and conduit joints.

Rec: $93,000 – Operate and maintain recreation facilities that support boating, camping, swimming, fishing, picnicing, and hiking.

Hydro: N/A

ES: $51,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: $7,000 – Management and oversight of existing water supply contract with the city of Warren, OH.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mount Morris Dam, NY

AUTHORIZATION: Flood Control Act of 1944 (P.L. 78-534) and Sec 5110 WRDA 2007 (P.L. 110-114), as amended

LOCATION AND DESCRIPTION: Mount Morris Dam is a dry-bed dam that provides flood damage reduction for the metropolitan area of Rochester, NY, other residential areas, farmlands, and industrial developments in the lower Genesee River Valley. Project includes a dry-bed dam, visitor center and service facilities, supporting recreation and natural resource management activities.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $915,165
CONFERENCE AMOUNT FOR FY2010: T: $2,562,000
BUDGET FOR FY2011: M: $1,511,000 **O:** $2,150,000 **T:** $3,661,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $3,363,000 – Funding provides for routine annual and periodic operations and maintenance activities necessary to operate the dam and service facilities. Also includes non-routine construction projects for installation of interior stairwell units, repair and upgrade of the south side haul road and staging area. These funds would ensure continued operation of the project and improve the condition of critical project features thereby ensuring continued project availability to mitigate damages from flooding in the lower Genesee River Valley.

Rec: $235,000 – Funding provides for routine operation and maintenance of visitor center and supporting recreation activities. An interpretive program through the Visitor Information Center exists to educate the public about the importance and history of the Corps and the project. These funds would ensure continued operation of the visitor center and interpretive program.

Hydro: N/A

ES: $63,000 – Funding provides for wildlife management, continuation of the Historic Properties Management Plan and pest management activities. These funds are required to perform preservation and improvement activities for fish and wildlife that are essential to the proper environmental management of the project and reservoir.

WS: N/A

OTHER INFORMATION: The Dam serves 161,000 people in the Genesee River 100-year flood plain. In 2008, the dam prevented an estimated $136,300,000 in flood damages. Since its completion in 1952, the dam has prevented an estimated $1,620,000,000 in flood damages.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Muskegon Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1902, as amended

LOCATION AND DESCRIPTION: Muskegon Harbor is located on the east shore of Lake Michigan, 114 miles northeast of Chicago, IL. It has a deep draft commercial harbor with project depths of between 28 and 29 feet. It has approximately 6,500 feet of maintained Federal channel and the dredged material from this harbor is used for beach nourishment. Maintenance dredging is required on a two to three year cycle, and was last dredged in 2008. Muskegon Harbor also has over 6,200 feet of maintained structures, including breakwaters, piers, and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $0
BUDGET FOR FY 2011: M: $800,000 **O**: $72,000 **T**: $872,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $872,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys and maintenance dredging by contract of 35,000 cubic yards of critical shoals to meet minimum safe vessel draft. Annual shoaling results in loss of available channel depth resulting in less efficient vessel operations and increased transportation costs.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Muskingum River Lakes, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761) as amended by Section 4 of the FCA of 1939 (P.L. 76-396)

LOCATION AND DESCRIPTION: The Muskingum River basin is the largest watershed within the State of OH. The river and its tributaries drain 8,051 square miles in all or parts of 24 counties in the southeastern portion of the state. The Muskingum River includes Atwood Lake, Beach City Lake, Bolivar Dam, Charles Mill Lake, Clendening Lake, Dover Dam, Leesville Lake, Mohawk Dam, Mohicanville Dam, Piedmont Lake, Pleasant Hill Lake, Senecaville Lake, Tappan Lake, and Wills Creek Lake.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $3,191,000
CONFERENCE FOR FY 2010: T: $6,943,000
BUDGET FOR FY 2011: M: $206,000 **O**: $8,038,000 **T**: $8,244,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $7,823,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy, and properly abandoning an existing relief well at Zoar Levee (which is a component to Dover Dam) to reduce the risk of failure.

Rec: $330,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $91,000 – Funding provides for routine operations and maintenance for environmental stewardship and for completion of 75% of the level one natural resources inventory to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Collectively, the Muskingum River Lake projects have prevented over $3,000,000,000 in damages over the course of its operation. Project visitations for FY 2009 totaled 7,416,070.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Nolin Lake, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Nolin Lake is located in Edmonson, Grayson and Hart Counties in south central Kentucky. It is located approximately 12 miles south of Leitchfield, Kentucky and 70 miles south of Louisville, Kentucky. The dam site is 7.8 miles above the mouth of the Nolin River and 9.6 miles upstream from Lock 6 on the Green River. The dam is rockfill and earth core type with gate controlled outlet works and uncontrolled open spillway and is 166 ft high and 980 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $3,114,100
CONFERENCE AMOUNT FOR FY2010: T: $2,354,000
BUDGET FOR FY2011: M: $61,000 **O**: $2,760,000 **T**: $2,821,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,751,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $594,000 – Funding provides for routine operation and maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $470,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $5.274M, FY2008 recreation visits were 2.2M, and FY2008 visitor expenditures were $45.72M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: North Branch Kokosing River Lake, OH

AUTHORIZATION: Section 203 of the Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: North Branch Kokosing River Lake is located north of Mount Vernon and west of Fredericktown, OH. Kokosing Dam was built by the United States Army Corps of Engineers for flood control, recreation and wildlife management. The majority of the property at Kokosing Lake is leased by the Ohio Division of Natural Resources for Fish and Wildlife Management. The Ohio Division of Natural Resources for Fish and Wildlife Management manages the 154-acre lake and 959 acres of public hunting area for a variety of fish and wildlife. The Kokosing Lake Campground, located on the banks of Kokosing Lake, is leased by Muskingum Watershed Conservancy District (MWCD).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $17,000
CONFERENCE FOR FY 2010: T: $260,000
BUDGET FOR FY 2011: M: $4,000 **O**: $292,000 **T**: $296,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $261,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $21,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $14,000 – Funding provides for routine operations and maintenance for environmental stewardship and to complete the level one natural resource inventory to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Project visitation for FY 2009 totaled 213,704.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: North Fork of Pound River Lake, VA

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: North Fork of Pound River Lake is located in Wise County, VA, on the North Fork of the Pound River. The Pound River is a tributary of the Russell Fork of the Levisa Fork of the Big Sandy River, 184 miles above the mouth of the Big Sandy River and 1.1 miles above the mouth of North Fork of Pound River. The lake is impounded by a rockfill dam with central impervious core with a height of 122 feet and length measuring 600 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $54,000
CONFERENCE FOR FY 2010: T: $599,000
BUDGET FOR FY 2011: M: $0 **O**: $668,000 **T**: $668,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $537,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $106,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: N/A

WS: $25,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 0.3 million gallons per day of water supply for the health, safety and economy of approximately 1,000 citizens for the Town of Pound, VA.

OTHER INFORMATION: North Fork of Pound River Lake project has prevented over $15,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 103,753.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Locks and Dams, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Locks and Dams is located in WV, KY and OH begins 127 miles downstream from Pittsburgh, PA (mile 127) and continues to mile 438 on the Ohio River. The project includes Willow Island, Belleville, Racine, Robert C. Byrd, Greenup, and Captain Anthony Meldahl Locks and Dams which are the six locks within the Huntington District located on the Ohio River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $4,581,000
CONFERENCE FOR FY 2010: T: $33,524,000
BUDGET FOR FY 2011: M: $18,456,000 **O**: $16,346,000 **T**: $34,802,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $34,639,000 – Funding provides for routine operations and maintenance for navigation, including required inspections to provide safe, reliable, efficient, effective, and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation; critical fleet maintenance to accomplish the repairs of the tainter gate side seals and machinery, and the replacement of the strut arms at Racine, the rehabilitation of the gudgeon pins at Willow Island, and the installation of the second set of replacement miter gates at Meldahl to increase reliability for inland navigation; replacement of the piggyback cranes at Racine and Meldahl to allow critical maintenance to be performed on the dam; completion of fabrication of the first set and initiation of fabrication of the second set of replacement miter gates at Greenup to reduce the risk of failure; continuation of the major rehabilitation report for the dam at Greenup; replacement of critical parts to ensure efficient repairs of Ohio River Lock and Dams projects; continuation of the Inland Waterways Transportation Economics effort, to ensure that resources are applied to the most critical projects throughout the Ohio River basin; preparation of plans and specifications for the culvert valve to valve Interlock and Position Indication System for all Ohio River Lock and Dams to ensure safe operation on the Ohio River locks; analysis and development of plans and specifications to address the spillway scour at Willow Island to ensure stability of the dam; and preparation of plans & specifications for the Dam Bulkhead Dogging Device System for all Ohio River Lock and Dams to reduce maintenance of the system by using a "track" to eliminate problems. These efforts will ensure that failed and inadequate components are restored and maintained at an adequate level of operation.

F&CSDR: N/A

Rec: $232,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $10,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: The 5 year average tonnage of commodities transported on this waterway exceeds 108,000,000. Project visitation for FY 2009 totaled 968,038.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Locks & Dam, KY, IL, IN & OH

AUTHORIZATION: 1909 Act (P.L. 60-317), Rivers & Harbor Appropriation Action of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: The Louisville District is responsible for eight locks and dams in the Ohio River System starting with Markland at river mile 531.5 and ending with Locks and Dam 53 at river mile 962.6. Locks and Dams 52 and 53 are low-lift wicket dams. Markland, McAlpine, Cannelton, Newburgh, John T. Myers and Smithland locks and dams are modern high lift projects between forty and fifty years old.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,450,705
CONFERENCE AMOUNT FOR FY2010: T: $38,724,000
BUDGET FOR FY2011: M: $11,217,000 **O**: $20,216,000 **T**: $31,433,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $31,145,000 - The Navigation line item contains the funding for routine operation and maintenance for the locks and dams; critical maintenance performed by the Louisville Repair Station, the navigation portion of joint costs for Engineering, Construction, Real Estate Divisions as well as District Office overhead costs. These funds maintain our navigation project availability and reliability. This level of funding covers bare-bones operation. The Repair Station is scheduled to perform maintenance at McAlpine, John T. Myers, and Newburgh Locks and Dams in FY2011 with O&M funds.

F&CSDR: N/A

Rec: $16,000 - The Recreation line item funds the mowing and maintenance of the visitor areas and boat ramps at the locks and dams referenced above.

Hydro: N/A

ES: $146,000 - The Environmental Stewardship line item funds the water quality, endangered species, and cultural resources activities on the Ohio River for the above referenced locks and dams. These activities are mandated by USACE regulations and policies.

WS: N/A

OTHER INFORMATION: Some of the highest tonnage on the inland waterways passes through the Louisville District locks with Locks and Dam 52 averaging over 90 million tons per year. The Olmsted Locks and Dams construction project will eventually replace Locks and Dams 52 and 53. The new miter gates are scheduled to be installed at Markland Locks and Dam in 2011 and the Repair Station will perform this work with funds from the Construction account for the Markland Major Rehab Project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Locks and Dams, PA, OH, and WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: Project consists of the navigable portion of the Ohio River from the Point at Pittsburgh, PA for 127.2 miles of the river downstream to New Martinsville, WV. Commercial and recreational navigation is provided from six locks and dams which are Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal within the 127.2 mile reach of river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 9,265,000
CONFERENCE AMOUNT FOR FY2010: T: $ 20,404,000
BUDGET FOR FY2011: M: $ 11,718,000 **O**: $ 16,305,000 **T**: $ 28,023,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

NAVIGATION: $28,023,000 – Operate and maintain six navigation locks and dams. Dewater Dashields lock to inspect and repair gates, valves, and operating machinery. Dewater Pike Island lock for installation of new miter gates. Repair Emsworth upper landwall gate operating machinery. At Hannibal dam replace the electrical conductor rail which provides 3-phase 480 volt power to the travelling bulkhead hoist. Complete remedial repairs to structural members of the Montgomery dam lift gates. Replace failing valve operating machinery essential to operating the New Cumberland lock. At Dashields install permanent danger dam warning signs to notify boaters of the fixed crest navigation dam hazards. Complete repairs to stabilize the failing upstream and downstream guidewalls at Dashields.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Project provides approximately 127.2 miles of navigable river including six navigation facilities.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Open Channel Work, WV, KY & OH

AUTHORIZATION: River and Harbor Acts of 1909 (P.L. 60-317) and 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Ohio River Open Channel Work, WV, KY and OH begins 127 miles downstream from Pittsburgh, PA (mile 127) and continues to mile 438 on the Ohio River. The project requires dredging annually to maintain its authorized depth of nine feet; if not, the mainstem channel will silt in and commercial traffic would be drastically impacted. This would have a detrimental impact on the commercial and navigation industry.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE FOR FY 2010: T: $2,847,000
BUDGET FOR FY 2011: M: $3,088,000 **O**: $0 **T**: $3,088,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,088,000 – Funding provides for routine operations and maintenance for navigation to maintain the minimum project dimensions.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The 5 year average tonnage of commodities transported on this waterway exceeds 108,000,000.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington

Ohio River Open Channel
Work, WV, KY & OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Open Channel Work, KY, IL, IN & OH

AUTHORIZATION: River and Harbors Act of 1827

LOCATION AND DESCRIPTION: This project consists of the Ohio River channel from Mile 438, at Foster, KY to Mile 981, at Cairo, IL, and is maintained by the Louisville District. Work under this project consists of channel condition surveys, navigation chart updates, channel maintenance dredging, and other activities necessary to support the work.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $2,972,774
CONFERENCE AMOUNT FOR FY2010: T: $5,546,000
BUDGET FOR FY2011: M: $5,555,000 **O**: $127,000 **T**: $5,682,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $5,682,000 - Funds will be used to perform annual channel condition surveys, in order to identify areas of sediment deposit which decrease channel depths to less than the authorized dimensions. Areas requiring dredging will be dredged by contract, with after dredge surveys to verify satisfactory completion of the work. Other work to be performed includes updates of navigation charts, coordination with federal and state wildlife agencies regarding environmental impacts and mitigation measures, and state water quality certification.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio River Open Channel Works, PA, OH, & WV

AUTHORIZATION: Rivers and Harbors Act dated 1909 and 1918

LOCATION AND DESCRIPTION: The project is located along the Ohio River from its beginning at the confluence of the Monongahela and Allegheny Rivers, Pittsburgh, PA to river mile 126.4 at New Martinsville, WV. Ohio River has an authorized navigation channel depth of nine (9) feet. This project includes dredging activities necessary to maintain the authorized navigation channel depth ensuring commercial navigation. The six locks and dams are Emsworth, Dashields, Montgomery, New Cumberland, Pike Island, and Hannibal.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 490,000
BUDGET FOR FY2011: M: $ 633,000 **O**: $ 0 **T**: $ 633,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $633,000 - Routine maintenance removal of sediment, debris, and drift to maintain an authorized navigation channel between the six upper Ohio River navigation facilities.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ohio-Mississippi Flood Control, Ohio

AUTHORIZATION: Section 7 of the FCA of 1944, P.L. 74-58 (58 Stat. 890; 33 U.S.C. 709)

LOCATION AND DESCRIPTION: This project funds the execution of Section 7 of the 1944 Flood Control Act which directs the Corps to conduct lower Ohio/Mississippi Rivers flood control for the primary purpose of protecting the Mississippi River levee system, including the direction of both Corps and Tennessee Valley Authority reservoirs.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $1,625,000
BUDGET FOR FY2011: M: $0 **O:** $1,722,000 **T**: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,722,000 - Funding will continue to provide coordinated regional water control management and maintain operational capabilities to perform Flood Risk Management mission and improve flood prediction forecasting, warning and reservoir management through development of new system-wide hydraulic and hydrologic models and technology and physical improvements to the Reservoir Control Center. Other measures includes all policy and technical activities employed in river and reservoir regulation including computer modelling, satellite data collection system, computer and hardware systems, reservoir system analysis, and policy interpretation and implementation and direction of lower Ohio and Mississippi River flood control operations. This project returns on average $18 million of flood damage reduction benefits for every $1 million spent.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Old Hickory Lock and Dam, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Old Hickory Lock and Dam is located in Metropolitan Nashville Davidson County, TN. The project consists of an 84' by 400' lock, concrete gravity and earth fill dam, hydropower plant and recreation and stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $3,231,413
CONFERENCE FOR FY 2010: T: $11,693,000
BUDGET FOR FY 2011: M: $529,000 **O**: $7,708,000 **T**: $8,237,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,045,000 - funding provides for routine operations & maintenance for navigation; critical fleet maintenance; navigation joints costs for data acquisition for dam safety, F&CSDR operations and Real Estate to resolve encroachments. Funds would improve navigation performance by providing maintenance of locks and channels, thus reducing industry delays.

F&CSDR: N/A.

Rec: $1,279,000 - funding provides for critical health and safety maintenance and services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas and campgrounds.

Hydro: $3,337,000 - funding provides for routine operations and maintenance for hydroelectric power plant and hydropower joint costs for operation and maintenance of the dam. Funds would allow power plant and dam to accomplish missions of providing low cost reliable electric power by maintaining high availability and peak availability and maintain control of the river.

ES: $546,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, and cultural resources. These funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles and stewardship policies and prevent loss and degradation of more than 34,000 acres to project lands and water.

WS: $30,000 - funding provides for evaluating all new intake requests' impacts to navigation. System wide operation of Cumberland River requires maintaining a water supply database.

OTHER INFORMATION: Old Hickory Lock processed an average of 4,200,000 tons of waterborne commerce annually from 2000 to 2004. Coal and industrial chemicals are dominant commodities. Shippers realize average annual transportation cost savings of more than $27,400,000. Navigation through Old Hickory Lock is the only coal fuel source for one of TVA's major electric generating stations, Gallatin Steam Plant. Hydropower plant generates 482,000 MWH of energy annually, which is enough supply for 40,200 homes. Ranks #3 in USACE for recreation with 8,500,000 project visits in FY07 with an associated $147,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ontonagon Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1867, as amended

LOCATION AND DESCRIPTION: Ontonagon Harbor is located about 140 miles east of Duluth, MN, on the south shore of Lake Superior, at the mouth of the Ontonagon River, MI. It is a deep draft commercial harbor with maintained depths varying from 19 to 21 feet in the entrance and inner channels. Maintenance dredging is required on an annual basis and was last dredged in 2009. There is over 4,800 feet of structures including piers and revetments and about 3/4 of a mile of maintained channel.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,066,000
BUDGET FOR FY 2011: M: $1,100,000 **O**: $72,000 **T**: $1,172,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $702,000 – Funding provides for routine operations and maintenance for navigation, project condition surveys, and maintenance dredging by contract of 45,000 cubic yards of critical shoals to meet minimum safe vessel draft. Annual shoaling results in loss of available channel depth resulting in less efficient vessel operations and increased transportation costs. This harbor provides the only means available to deliver coal to the White Pine Electric Power generating plant.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Oswego Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1870, 1907, 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1940 P.L. 76-868), 1948 (P.L. 80-858), 1954 (P.L. 83-780) and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Oswego Harbor is a deep draft commercial harbor located on Lake Ontario in the city of Oswego, Oswego County, NY, whose authorized depths are 25 feet in the outer harbor, 27 feet in the lake approach channel and 21-24 feet in the Oswego River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $300,000
BUDGET FOR FY2011: M: $0 **O:** $34,000 **T:** $34,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $34,000 - Funding provides for routine operations for navigation, project condition surveys. The project condition surveys will determine the condition of the Federal navigation channel and structures. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. Survey data is made available to the general public on the Web and is used as unofficial navigational charts for both recreational and commercial vessels.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Oswego Harbor had 558,000 tons of material shipped or received in 2007 and is ranked 43rd among the Great Lakes Ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include Port of Oswego, U.S. Coast Guard, NRG Energy, Sprague Energy Corporation, Lafarge Cement and Essroc Cement. Bulk commodities that pass through Oswego Harbor generate approximately $5,909,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ontonagon Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1867, as amended

LOCATION AND DESCRIPTION: Ontonagon Harbor is located about 140 miles east of Duluth, MN, on the south shore of Lake Superior, at the mouth of the Ontonagon River, MI. It is a deep draft commercial harbor with maintained depths varying from 19 to 21 feet in the entrance and inner channels. Maintenance dredging is required on an annual basis and was last dredged in 2009. There is over 4,800 feet of structures including piers and revetments and about 3/4 of a mile of maintained channel.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,066,000
BUDGET FOR FY 2011: M: $630,000 **O**: $72,000 **T**: $702,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $702,000 – Funding provides for routine operations and maintenance for navigation, project condition surveys, and maintenance dredging by contract of 45,000 cubic yards of critical shoals to meet minimum safe vessel draft. Annual shoaling results in loss of available channel depth resulting in less efficient vessel operations and increased transportation costs. This harbor provides the only means available to deliver coal to the White Pine Electric Power generating plant.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Oswego Harbor, NY

AUTHORIZATION: River and Harbor Acts of 1870, 1907, 1930 (P.L. 71-520), 1935 (P.L. 74-409), 1940 P.L. 76-868), 1948 (P.L. 80-858), 1954 (P.L. 83-780) and 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: Oswego Harbor is a deep draft commercial harbor located on Lake Ontario in the city of Oswego, Oswego County, NY, whose authorized depths are 25 feet in the outer harbor, 27 feet in the lake approach channel and 21-24 feet in the Oswego River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $300,000
BUDGET FOR FY2011: M: $0 **O:** $34,000 **T:** $34,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $34,000 - Funding provides for routine operations for navigation, project condition surveys. The project condition surveys will determine the condition of the Federal navigation channel and structures. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. Survey data is made available to the general public on the Web and is used as unofficial navigational charts for both recreational and commercial vessels.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Oswego Harbor had 558,000 tons of material shipped or received in 2007 and is ranked 43rd among the Great Lakes Ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include Port of Oswego, U.S. Coast Guard, NRG Energy, Sprague Energy Corporation, Lafarge Cement and Essroc Cement. Bulk commodities that pass through Oswego Harbor generate approximately $5,909,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Paint Creek Lake, OH

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Paint Creek Lake is located in Ross and Highland Counties, OH, a tributary of the Scioto River. It is 36.8 miles above the mouth of Paint Creek and 100 miles above the mouth of the Scioto River. The dam is an earth and rock embankment with a maximum height of 118 feet and top length of 700 feet with a gated spillway.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $804,000
CONFERENCE FOR FY 2010: T: $1,156,000
BUDGET FOR FY 2011: M: $0 **O**: $1,297,000 **T**: $1,297,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $968,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $262,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $37,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $30,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 4 million gallons per day of water supply for the health, safety and economy of approximately 6,000 citizens in Highland and Bourneville Counties, OH.

OTHER INFORMATION: Paint Creek Lake has prevented over $118,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,021,541.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Paintsville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Paintsville Lake is located in Johnson County, KY, 7.8 miles above the mouth of Paint Creek, and about 4 miles west of Paintsville. The lake is impounded by a rock fill dam with a central impervious core. Its maximum height is 160 feet above the streambed, and the crest length is approximately 1,600 feet with a crest elevation of 757 feet, mean sea level.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,125,000
CONFERENCE FOR FY 2010: T: $1,170,000
BUDGET FOR FY 2011: M: $0 **O**: $1,361,000 **T**: $1,361,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,038,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $202,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $81,000 – Funding provides for routine operations and maintenance for environmental stewardship and initiate the Natural Resource Level 1 vegetation inventories to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $40,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 6 million gallons per day of water supply for the health, safety and economy of Johnson County, KY and large portions of adjacent counties. The water supply agreement is currently being reviewed.

OTHER INFORMATION: Paintsville Lake has prevented over $19,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,044,944.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Patoka Lake, IN

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Patoka Lake is located in southern Indiana about 13 miles northeast of Jasper, Indiana and 118.3 miles above the mouth of the Patoka River. It is located about 95 miles south of Indianapolis, Indiana. The lake lies in portions of Dubois, Orange, and Crawford counties in Indiana. The dam is earth and rock fill with gate controlled outlet works and uncontrolled open spillway and is 84 ft high and 1,550 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality. The lake is managed as a P.L. 89-298 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $61,000
CONFERENCE AMOUNT FOR FY2010: T: $843,000
BUDGET FOR FY2011: M: $5,000 **O**: $975,000 **T**: $980,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $854,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $50,000 – Funding provides for minimal health and safety needs at day-use recreation areas and overlook facilities. These funds support public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $70,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $15.418M, FY2008 recreation visits were 601K, andFY2008 visitor expenditures were $16.25M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Punxsutawney, PA

AUTHORIZATION: Flood Control Act approved 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: The project is located at Punxsutawney, in Jefferson County, PA, on Mahoning Creek, 52 miles above its mouth and 30 miles above Mahoning Creek Lake Dam. Punxsutawney, PA is a local flood protection project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 22,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 22,000 **T**: $22,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $22,000 - Assure safety, structure, integrity and operational adequacy through inspection of the project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: R. D. Bailey Lake, WV

AUTHORIZATION: Section 203 of Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: R. D. Bailey Lake is located on the Guyandotte River in Mingo and Wyoming Counties in WV approximately 112 miles above the mouth of the Guyandotte River and about 1 mile northeast of the community of Justice. The lake is impounded by a random and rock fill dam with a concrete face. The maximum height is 310 feet, and the top length of the dam is 1,397 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,525,000
CONFERENCE FOR FY 2010: T: $1,831,000
BUDGET FOR FY 2011: M: $8,000 **O**: $2,229,000 **T**: $2,237,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,402,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $791,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $44,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: R. D. Bailey Lake has prevented over $190,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 231,861.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington R. D. Bailey Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rochester Harbor, NY

AUTHORIZATION: River & Harbor Acts of 1829, 1882, 1910 (P.L. 60-317), 1935 (P.L. 74-409), 1945 (P.L. 79-14) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Rochester Harbor is a deep draft commercial harbor located on Lake Ontario in the city of Rochester, Monroe County, NY, whose authorized depths are 24 feet in the approach channel, 23 feet in the entrance channel and 21 feet in the Genesee River.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE AMOUNT FOR FY2010: T: $963,000
BUDGET FOR FY2011: M: $0 **O:** $56,000 **T:** $56,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $50,000 - Funding provides for routine operations for navigation, project condition surveys. The project condition surveys will determine the condition of the Federal navigation channel and structures. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. Survey data is made available to the general public on the Web and is used as unofficial navigational charts for both recreational and commercial vessels.

F&CSDR: N/A

Rec: $6,000 - Funding provides for public visitation tracking to monitor and evaluate the public use of the West Pier. The data collected will be used to justify future recreation funding to improve public access and recreation features and/or operations and maintenance funding to operate, maintain and repair the navigation structure.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include the Rochester-Monroe County Port Authority, Port of Rochester, U.S. Coast Guard, Essroc Cement Corporation and Shellet-Genesee Shipping Group.
Bulk commodities that pass through Rochester Harbor generate approximately $2,073,000 annually in direct revenue. Navigation structures with recreation features (i.e. walkway) are often heavily used by the public for a variety of reasons, including: access to the waterfront, fishing, and/or location next to an existing public park. The west pier can be accessed from the adjacent Ontario Beach Park.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Roseville Local Protection Project, OH

AUTHORIZATION: Section 4 of the Flood Control Act (FCA) of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Roseville Local Protection Project is located in the Village of Roseville, OH, on the Moxahala Creek, a tributary of the Muskingum River, about 9.5 miles southwest of Zanesville, OH. The protection works consist of 7,291 lineal feet of channel improvement, 5,500 lineal feet of levee, a pump station to prevent flooding from internal drainage, and 4 gatewells on outfall sewers that empty into Moxahala Creek. The new channel has a 60 foot bottom width and side slopes of 1 vertical to 2 horizontal, except along the levee where the slopes are 1 to 2.5.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $0
CONFERENCE FOR FY 2010: T: $35,000
BUDGET FOR FY 2011: M: $0 **O**: $35,000 **T**: $35,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $35,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to maintain a clear channel and reduce flood damages.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Roseville Local Protection Project has prevented over $1,000,000 in damages over the course of its operation.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Roseville Local Protection Project, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rough River Lake and Channel Improvement, KY

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Rough River Lake is located in Breckinridge, Hardin and Grayson counties in south central Kentucky. The dam is located on the Rough River, 89.3 miles above its confluence with the Green River, near the community of Falls of Rough, approximately 20 miles from Leitchfield and 95 miles southwest of Louisville. The dam is rolled earth and rockfill type, with gate-controlled outlet works and is 130 ft high and 1,590 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality. The lake is managed as a P.L. 89-72 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,512,400
CONFERENCE AMOUNT FOR FY2010: T: $2,606,000
BUDGET FOR FY2011: M: $ 122,000 **O**: $2,484,000 **T**: $2,606,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,683,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $638,000 – Funding provides for routine operation and daily maintenance of day-use and overnight recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $267,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $18,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $14.988M, FY2008 recreation visits were 1.6M, and FY2008 visitor expenditures were $40.44M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Saginaw River, MI

AUTHORIZATION: Rivers and Harbors Act of 1910, as amended

LOCATION AND DESCRIPTION: Saginaw River is a deep draft commercial harbor formed by the union of the Tittabawassee and Shiawassee Rivers, is 22 miles long, and flows north into the south end of Saginaw Bay in Lake Huron. The cities of Saginaw and Bay City are located on the river. Project depths vary from 27 feet in the Saginaw Bay entrance channel to 22 to 26 feet in the Saginaw River channel. There are a total of 26 miles of Federal channels and 5 turning basins. The project requires maintenance dredging on an annual basis, with dredged material from the bay channels placed in the Saginaw Bay confined disposal facility (CDF) which has a remaining capacity of approximately five years. Material removed from the upper river channel is placed in the new Upper Saginaw dredged material disposal facility which has sufficient capacity for the next 25 years.

RECOVERY ACT ALLOCATIONS TO DATE: T: $2,660,000
CONFERENCE AMOUNT FOR FY 2010: T: $ 3,444,000
BUDGET FOR FY 2011: M: $2,850,000 **O**: $340,000 **T**: $3,190,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,190,000 – Funding provides for routine operations and maintenance for navigation, including project condition surveys, maintenance dredging by contract of 295,000 cubic yards of critical shoals to meet minimum safe vessel draft, and to perform maintenance and site work to maintain structural integrity of the Saginaw Bay CDF and prevent dike wall failures. Funding ensures fully functional channels are maintained within the harbor, and that adequate capacity will be available at the Saginaw Bay CDF for annual dredged material disposal. Saginaw River handles over 5 million tons annually, and a loss of one to two feet of channel depth due to annual shoaling can result in increased transportation costs from $1 million to $3 million.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Salamonie Lake, IN

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Salamonie Lake is located in north central Indiana about 34 miles southwest of Ft. Wayne. The dam site is at mile 3.1 on the Salamonie River, a tributary of the Wabash River. The project lies in Wabash and Huntington counties. The dam is earthfill with gate controlled outlet works and uncontrolled open spillway and is 133 ft high and 6,100 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $53,588
CONFERENCE AMOUNT FOR FY2010: T: $859,000
BUDGET FOR FY2011: M: $0 **O**: $1,012,000 **T**: $1,012,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $900,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $50,000 – Funding provides for routine operation and daily maintenance of day-use recreation areas, facilities and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $62,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $33.527M, FY2008 recreation visits were 433K, and FY2008 visitor expenditures were $10.74M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sandusky Harbor, OH

AUTHORIZATION: River & Harbor Acts of 1899, 1902, 1919 (P.L. 65-200), 1927, 1935 (P.L. 74-409), 1945 (P.L. 79-14) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Sandusky Harbor is a deep draft commercial harbor, located on Lake Erie in the city of Sandusky, Erie County, OH, whose authorized depths vary from 21-26 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,083,770
CONFERENCE AMOUNT FOR FY2010: T: $1,392,000
BUDGET FOR FY2011: M: $1,057,000 **O:** $45,000 **T:** $1,102,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,102,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys and dredging. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 145,000 cubic yards of sediment from the harbor thereby improving the availability and reliability of the navigation channels and providing approximately $1,700,000 in transportation cost savings to commercial shippers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The project is the 87th leading U.S. port with 3,880,000 tons of material shipped or received in 2007 and ranked 21st among the Great Lakes Ports. The project provides maintained deep draft navigation channels that facilitate the movement of goods and materials to and from commercial docks. Major stakeholders include Norfolk Southern, Sandusky Dock Corp., George Gradel Co., Cedar Point Amusement Park and commercial ferries. Bulk commodities that pass through Sandusky Harbor generate approximately $53,259,000 annually in direct revenue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sebewaing River, MI

AUTHORIZATION: Rivers and Harbors Act of 1896

LOCATION AND DESCRIPTION: Sebewaing River is a shallow draft recreational navigation project and a flood and coastal storm damage reduction project located on Saginaw Bay in the thumb of Michigan on the west shore of Lake Huron, about 20 miles northeast of the mouth of the Saginaw River. The navigation project has a depth of eight feet with over 15,000 feet of maintained Federal channel. The dredged material has been placed in the Sebewaing Confined Disposal Facility, but that facility is currently very close to capacity. The flood and coastal storm damage reduction project includes approximately 11,000 feet of levees and 1,900 feet of floodwalls. The Operations and Maintenance of both the navigation portion and the flood control portion is a Federal responsibility.

RECOVERY ACT ALLOCATIONS TO DATE: T: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,140,000
BUDGET FOR FY 2011: M: $75,000 **O**: $0 **T**: $75,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $75,000 – Funding provides for supervision and oversight of a contract to be awarded with FY10 funds for repair and/or replacement of portions of the earth levees to correct significant structural encroachments and to clear large vegetation.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Shenango River Lake, PA

AUTHORIZATION: Flood Control Act of 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Shenango Dam is located on the Shenango River about 0.8 mile above Sharpsville, PA and about 34.2 miles above its junction with the Mahoning River near New Castle, PA, forming the Beaver River. The reservoir is located in Mercer County, PA, and Trumbull County, OH. Shenango River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 818,000
CONFERENCE AMOUNT FOR FY2010: T: $ 6,645,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 2,496,000 **T**: $ 2,496,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,500,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $892,000 – Operate and maintain recreation facilities that supports the full range of camping, swimming, boating, fishing, hunting, picnicing, and trails for hiking and nature interpretation.

Hydro: N/A

ES: $104,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Shenango River Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: St. Clair River, MI

AUTHORIZATION: Rivers and Harbors Act of Jul 1892, as amended

LOCATION AND DESCRIPTION: St. Clair River is one of the Great Lakes connecting channels that flows south from Lake Huron and discharges into Lake St. Clair. It is a deep draft commercial project with project depths ranging from 27 to 30 feet. St. Clair River serves the ports of Marysville, Marine City and St. Clair, MI, and includes over 44 miles of Federal channels. Maintenance dredging is required on a two to three year cycle, with the project last dredged in 2009. Dickinson Island confined disposal facility has provided a suitable placement site for all material dredged from the St. Clair River since 1980 and is anticipated to have sufficient capacity for at least 25 more years.

RECOVERY ACT ALLOCATIONS TO DATE: T: $423,000
CONFERENCE AMOUNT FOR FY 2010: T: $ 507,000
BUDGET FOR FY 2011: M: $1,050,000 **O**: $183,000 **T**: $1,233,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,233,000 – Funding provides for routine operations and maintenance for navigation including project condition surveys, maintenance dredging of approximately 26,000 cubic yards to provide minimum function at the most critical reaches, and strike removal by Government floating plant. Annual shoaling can result in a loss of available channel depth between one and two feet which results in increased transportation costs of between $15 million and $35 million. Commercial vessel operations and/or wave and ice action annually result in the dislodging of rock from channel bottoms, resulting in unsafe channel conditions for vessel movements.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: St. Joseph Harbor, MI

AUTHORIZATION: Rivers and Harbors Act of 1875

LOCATION AND DESCRIPTION: St. Joseph Harbor is located on the east shore of Lake Michigan, 60 miles east of Chicago, IL, and 24 miles south of South Haven, MI. St. Joseph Harbor is a deep draft commercial harbor which includes over a mile of maintained channel with project depths of 21 feet in the entrance and inner channel and 18 feet in the inner river channel and turning basin. Maintenance dredging is required annually, with outer channel dredged material used for beach nourishment and inner channel material placed upland. The project also includes over 5,300 feet of structures including piers and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: T: $1,661,001
CONFERENCE AMOUNT FOR FY 2010: T: $718,000
BUDGET FOR FY 2011: M: $575,000 **O:** $180,000 **T:** $755,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $755,000 – Funding provides for routine operations and maintenance for navigation including project condition surveys and maintenance dredging by contract of 45,000 cubic yards of critical shoals to meet minimum safe vessel draft. Shoaling annually results in a loss of five to six feet of available channel depth and over $3 million in increased transportation costs.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: St. Marys River, MI

AUTHORIZATION: Rivers and Harbors Act of 1870, as amended

LOCATION AND DESCRIPTION: St. Marys River is one of the Great Lakes connecting channels and is 63 miles long. The river flows southeast from the eastern end of Lake Superior into the northern end of Lake Huron along the border between the State of Michigan and the Province of Ontario, Canada. This deep draft commercial channel includes a total of 75 miles of maintained channels with depths varying from 27 to 29 feet in the St. Marys River, Lake Superior and Lake Huron approaches. This project also includes two active locks (one 110x1200ft chamber and one 80x800ft chamber, both with a 21 foot lift), two approach canals, a hydropower plant and a Visitor Center.

RECOVERY ACT ALLOCATIONS TO DATE: T: $3,300,000
CONFERENCE AMOUNT FOR FY 2010: T: $21,867,000
BUDGET FOR FY 2011: M: $11,485,000 **O**: $10,589,000 **T**: $22,074,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $19,508,000 – Funding provides for routine operation and maintenance of two active navigation locks, critical maintenance repairs to the locks, project condition surveys, critical channel strike removal, and a portion of joint facility security/grounds maintenance. Funds ensure safe and reliable operation of the navigation locks and connecting channels located in the St. Marys River, which historically accommodate over 80 million tons of cargo annually. A one to two foot reduction in available draft due to any channel restrictions results in increased transportation costs of between $5 million and $14 million annually, and a thirty day closure of the Soo Locks can result in up to $150 million in increased transportation costs.

F&CSDR: N/A

Rec: $359,000 - Funding provides for routine operation and maintenance of project visitor center and a portion of joint facility security/grounds maintenance. The visitor center and park accommodate an annual visitation in excess of 600,000 people and provides educational opportunities related to the locks and Corps of Engineers missions.

Hydro: $2,148,000 – Funding provides for routine operation and maintenance of two hydropower facilities that house five generating units, maintenance/replacement of electrical relays, and a portion of joint facility security/grounds maintenance. These funds ensure the safe and reliable operation of the Federal hydropower plant with a 20 megawatt capacity that provides all of the power for operation of the Soo Locks complex and supports the base load for the area grid, meeting up to 20% of regional power demand.

ES: $59,000 – Funding provides for annual activities associated with compliance with State and Federal historic preservation requirements.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stonewall Jackson Lake, WV

AUTHORIZATION: Flood Control Act of November 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: Stonewall Jackson Dam is on the West Fork River at Brownsville, WV, approximately 73.9 miles above its junction with the Tygart River at Fairmont, WV, where the two rivers form the Monongahela River. The lake is located entirely within Lewis County, WV. Stonewall Jackson Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 140,000
CONFERENCE AMOUNT FOR FY2010: T: $ 1,091,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 1,173,000 **T**: $ 1,173,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,060,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $64,000 - Operate and maintain recreation facilities including a visitor center, fishing access, and leased lands to the state of WV for huniting, fishing, camping, and other recreation.

Hydro: N/A

ES: $42,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: $7,000 – Management and oversight of water supply storage.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sturgeon Bay Harbor & Lake Michigan Ship Canal, WI

AUTHORIZATION: Rivers and Harbors Act of 1873

LOCATION AND DESCRIPTION: Sturgeon Bay Harbor is located in Wisconsin on the west shore of Lake Michigan approximately 52 miles northeast of Green Bay and about 128 miles north of Milwaukee. Provides for deep draft commercial navigation with 8.5 miles of maintained navigation channel depths of 22 to 23 feet and at 20 feet within the turning basin. Project also includes over 15,100 feet of navigation structures, including breakwaters and revetments. Sturgeon Bay is home to two ship builders and a U.S. Coast Guard search and rescue operation.

RECOVERY ACT ALLOCATIONS TO DATE: T: $6,666,027
CONFERENCE AMOUNT FOR FY 2010: T: $550,000
BUDGET FOR FY 2011: M: $0 **O**: $19,000 **T**: $19,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: N/A

Rec: $19,000 - Funding provides for maintenance of recreational features of this project, thereby ensuring access to parking areas and foot trails.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Summersville Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Summersville Lake is located in Nicholas County, WV, on the Gauley River, a tributary of the Kanawha River. It is 34.5 miles above the mouth of the Gauley River and 131.5 miles above the mouth of the Kanawha River. The dam is a rock fill with a central impervious core, a maximum height of 390 feet, and a top length of 2,280 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $1,258,000
CONFERENCE FOR FY 2010: T: $3,073,000
BUDGET FOR FY 2011: M: $8,000 **O**: $2,368,000 **T**: $2,376,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,345,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $947,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $54,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $30,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 4 million gallons per day of water supply for the health, safety and economy of approximately 12,000 citizens in Summersville, WV.

OTHER INFORMATION: Summersville Lake has prevented over $632,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 928,579.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Summersville Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sutton Lake, WV

AUTHORIZATION: Section 4 of Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Sutton Lake is located in Braxton County, WV, on the Elk River, a tributary of the Kanawha River. It is 100.4 miles above the mouth of the Elk River and 158.9 miles above the mouth of the Kanawha River. The lake is impounded by a concrete gravity dam with a maximum height of 210 feet, a top length of 1,178 feet, a top width of 20 feet, and a maximum base width of 195 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $2,357,000
CONFERENCE FOR FY 2010: T: $2,293,000
BUDGET FOR FY 2011: M: $807,000 **O**: $2,268,000 **T**: $3,075,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $2,272,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy; for correction of the spillway gate structural deficiency to ensure that the project is able to adequately impound the volume of water for which it was designed; and to develop the Interim Risk Reduction Measures plan for the project, to reduce the risk of failure at the project.

Rec: $774,000 –Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $29,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Sutton Lake has prevented over $375,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 469,794.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Taylorsville Lake, KY

AUTHORIZATION: Flood Control Act of 1966 (P.L. 89-789)

LOCATION AND DESCRIPTION: The dam is located at mile 60.0 of the Salt River, a tributary of the Ohio River, approximately 40 miles southeast of Louisville, and 4 miles upstream from Taylorsville. All fee and easement property is located in Spencer, Nelson, and Anderson counties. The dam is earth and rockfilled, with gate controlled outlet works and uncontrolled open spillway and is 163 ft high and 1,280 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. The lake is managed as a P.L. 89-789 project.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $90,000
CONFERENCE AMOUNT FOR FY2010: T: $1,049,000
BUDGET FOR FY2011: M: $0 **O**: $1,232,000 **T**: $1,232,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $996,000 – Funding provides for routine operation and daily maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $74,000 – Funding provides for minimal health and safety needs at day-use recreation areas and overlook facilities. These funds support public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $162,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $10.546M, FY2008 recreation visits were 779K, and FY2008 visitor expenditures were $17.59M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tennessee River, TN

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Formed by the junction of French Broad and Holston Rivers in eastern Tennessee, the river flows southwest into northern Alabama, in westerly course across north Alabama, to the northeast boundary of Mississippi, north across Tennessee and Kentucky, entering Ohio River at Paducah, Kentucky. Tennessee River navigation system has 10 locks and 780 miles of navigable channel. There are 150 terminals (13 municipal, 15 governments and 122 private). A total of 79 terminals have railroad connections. Principal commodities are petroleum products, stone, sand, gravel, coal, coke, grain, chemicals, iron and steel.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $23,724,650
CONFERENCE FOR FY 2010: T: $15,997,000
BUDGET FOR FY 2011: M: $3,540,000 **O**: $13,000,000 **T**: $16,540,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $16,540,000 – funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; maintenance dredging and Wilson Lock dewatering. These funds would improve navigation performance by providing maintenance of locks and channels, restoring project dimensions to safe levels and preventing damage of vessels and destruction of the waterway environment. Wilson Lock Dewatering to inspect and repair critical structural submerged components: worn gate quoin & miter blocks, valve structure members and damaged upper lift gate machinery.

F&CSDR: N/A.

Rec: N/A

Hydro: N/A

ES: N/A.

WS: N/A.

OTHER INFORMATION: Tennessee River, transports 54,000,000 tons annually, is the most economic means of bulk material transport for 780 miles of navigation channel. The average age of locks is 58 years. There is considerable river use for military and rocket booster shipments and oversized components such as nuclear steam generators. The Tennessee Valley Authority heavily uses barge transportation to service hydroelectric, coal, steam and nuclear plants. The Power Service shop at Muscle Shoals performs maintenance on dam & lock components for multiple Corps of Engineers Districts.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tionesta Lake, PA

AUTHORIZATION: Flood Control Act approved 22 June 1936 (P.L. 74-738), as amended by Flood Control Act 28 June 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: Tionesta Dam is located on Tionesta Creek, 1.17 miles above the junction of the creek with the Allegheny River at Tionesta, PA, and about 78 miles northeast of Pittsburgh, PA. The reservoir is located entirely in Forest County, PA. Tionesta Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 536,950
CONFERENCE AMOUNT FOR FY2010: T: $ 1,722,000
BUDGET FOR FY2011: M: $ 220,000 **O**: $ 1,980,000 **T**: $ 2,200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,594,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management. Complete critical repairs to restore ability to operate flood gates and make water releases.

Rec: $579,000 – Operate and maintain recreation facilities supporting boating, camping, fishing, hunting, picnicing, hiking and interpretation trails, and a visitor center.

Hydro: N/A

ES: $27,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Tionesta Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Toledo Harbor, OH

AUTHORIZATION: River and Harbor Acts of 1910 (P.L. 60-317), 1935 (P.L. 74-409), 1950 (P.L. 81-516), 1954 (P.L. 83-780), 1958 (P.L. 85-500) and 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Toledo Harbor is a deep-draft commercial harbor, located at the southwestern corner of Lake Erie, 110 miles west of Cleveland, OH and 42 miles south of Detroit, MI, whose authorized depths are 28 feet in the bay, 27 feet in the lower river and 25 feet in the upper river.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: **T:** $947,603
CONFERENCE AMOUNT FOR FY2010: **T:** $5,253,000
BUDGET FOR FY2011: **M:** $4,499,000 **O:** $550,000 **T:** $5,049,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $5,049,000 - Funding provides for routine operations and maintenance for navigation including project condition surveys, and primary dredging of the Maumee Bay and Maumee River. These funds would improve navigation performance by reducing unsafe navigation conditions within the harbor, vessel delays and transportation costs. The project condition surveys will determine the condition of the Federal navigation channel. The surveys will be used to plan and schedule maintenance activities and communicate the condition of Federal channels to navigation interests. The dredging will remove approximately 250,000 cubic yards of sediment from the Maumee River and 500,000 cubic yards of sediment from the Maumee Bay thereby improving the availability and reliability of the navigation channels and providing approximately $12,200,000 in transportation cost savings to commercial shippers.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Toledo Harbor is the 49th leading U.S. port with 12,500,000 tons of material shipped or received in 2007, and is ranked 7th among the Great Lakes Ports. Major stakeholders include the Toledo-Lucas County Port Authority, City of Toledo, U.S. Coast Guard, St. Mary's Cement Inc., Midwest Terminals of Toledo International, Kuhlman, The Andersons Inc., ADM Grain Company, Hansen Mueller Co., BP Products North America, Inc., Center Terminal Company of Toledo, Middleport Terminal Inc., Seneca Petroleum Company, Sunoco MidAmerica M&R, CSX, Lafarge Cement, Arms Dock, and Ironhead Marine Inc. Toledo Harbor has direct access to inter-modal connections and also functions as a critical harbor of refuge. Cargo includes coal, petroleum, aggregates, metal products, limestone, grain, chemicals, iron ore, steel products, cement, ores, minerals and sugar.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tom Jenkins Dam, OH

AUTHORIZATION: Section 10 of Flood Control Act of 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Tom Jenkins Dam is located in Athens County, OH, on the East Branch of Sunday Creek, a tributary of the Hocking River. It is 0.3 miles above the mouth of East Branch and 57.2 miles above the mouth of the Hocking River. The lake is impounded by a rolled earth fill dam with a maximum height of 84 feet and a top length of 944 feet.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $44,000
CONFERENCE FOR FY 2010: T: $850,000
BUDGET FOR FY 2011: M: $0 **O**: $603,000 **T**: $603,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $493,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $77,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $8,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: $25,000 – Funding provides for routine operations and maintenance for water supply to provide an estimated 8 million gallons per day of water supply for the health, safety and economy of approximately 25,000 citizens in Athens and Morgan Counties, Ohio.

OTHER INFORMATION: Tom Jenkins Dam has prevented over $26,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 1,063,340.

DIVISION: Great Lakes and Ohio River DISTRICT: Huntington Tom Jenkins Dam, OH

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tygart Lake, WV

AUTHORIZATION: Rivers and Harbors Act of 1935 (P.L. 74-409)

LOCATION AND DESCRIPTION: Tygart Dam is located on the Tygart River, in Taylor County, WV, about 23.1 miles above the mouth of the river at Fairmont, WV, about 2.25 miles above Grafton, WV, and about 78 miles south of Pittsburgh, PA. The lake is located in Taylor and Barbour Counties, WV. Tygart Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 101,985
CONFERENCE AMOUNT FOR FY2010: T: $ 1,405,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 1,434,000 **T**: $ 1,434,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,285,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $75,000 – Operate and maintain recreation facilities to support boating, swimming, camping, fishing, hunting, picnicing, and hiking trails.

Hydro: N/A

ES: $67,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: $ 7,000 – Management and oversight of water supply contract with City of Grafton, WV.

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Tygart Lake, WV

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Union City Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Union City Dam is located on French Creek, about 73.9 miles upstream from its junction with the Allegheny River at Franklin, PA. The reservoir is located entirely in Erie County, PA. Union City Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 12,000
CONFERENCE AMOUNT FOR FY2010: T: $ 418,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 425,000 **T**: $ 425,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $382,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $38,000 – Operate and maintain recreation facilities, inlcuding a picnic and fishing area.

Hydro: N/A

ES: $5,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, and invasive species eradication.

WS: N/A

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh Union City Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Waukegan Harbor, IL

AUTHORIZATION: River and Harbor Acts of 1880, 1882, 1902, 1945, 1965, and 1970 (P.L. 91-611)

LOCATION AND DESCRIPTION: Waukegan Harbor is in northeastern Illinois on the west shore of Lake Michigan in Lake County, 38 miles north of Chicago Harbor. The project consists of a breakwater (859 feet of concrete capped timber crib structure); a shore connection (1,035 feet of concrete capped timber pile structures); a revetment wall (632 feet of sheetpile); a north pier (444 feet of anchored steel sheeting and 998 feet of concrete capped timber crib structure); a south pier (3,511 feet of concrete capped timber pile and crib structures); an entrance channel (390 feet wide and 22 feet deep); a channel between the piers and an inner basin (23 feet deep); and an anchorage area within the inner basin (8 feet deep).

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 0
CONFERENCE AMOUNT FOR FY2010: T: $ 468,000
BUDGET FOR FY2011: M: $ 500,000 **O**: $90,000 **T**: $590,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $590,000 – $90,000 funds regular operations, navigation channel and structures' inspections, safety signage, and responsiveness to customers. $500,000 funds dredging of critical annual shoaling at harbor entrance to restore port to fully functional status.

F&CSDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Transportation cost savings for this project are $3,194,584.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: West Fork of Mill Creek Lake, OH

AUTHORIZATION: Flood Control Act of 1946 (P.L. 79-526)

LOCATION AND DESCRIPTION: West Fork Lake is located in Hamilton County, Ohio. The dam is an earth embankment dam, 100 ft high and 1,100 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, and water quality. In addition, it provides a reduction of pumping requirements at the barrier dam of the local protection works at Cincinnati. Recreational development is under lease agreement with the Hamilton County Park District Board.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $5,956
CONFERENCE AMOUNT FOR FY2010: T: $708,000
BUDGET FOR FY2011: M: $4,000 **O**: $746,000 **T**: $750,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $656,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $46,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilties and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $48,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: N/A

OTHER INFORMATION: FY2008 flood damages prevented were $11.027M, FY2008 recreation visits were 777K, and FY 2008 visitor expenditures were $14.30M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: William H Harsha Lake, OH

AUTHORIZATION: Flood Control Act of 1938 (P.L. 75-761)

LOCATION AND DESCRIPTION: William H Harsha Lake is located in Clermont County, Ohio. The dam is earthfill with outlet works, a separate saddle dam and spillway. The dam is 200 ft high and 1,450 ft long. The Saddle Dam is 100 ft high and 2,600 ft long. The project was authorized as a multi-purpose flood control project with additional authorized responsibilities for recreation management, environmental stewardship, water supply and water quality.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $61,584
CONFERENCE AMOUNT FOR FY2010: T: $978,000
BUDGET FOR FY2011: M: $568,000 **O**: $1,043,000 **T**: $1,611,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

F&CSDR: $1,399,000 – Funding provides for routine operation and maintenance of the dam, outlet works and related infrastructure. These funds support execution of our mission to prevent damages to flood-prone areas, property and communities in the floodway, as well as the destructive impacts of floods on human activities within those areas. Critical dam safety programs and activities are also supported with these funds.

Rec: $150,000 – Funding provides for routine operation and maintenance of day-use recreation areas, facilties and features. These funds support management of the recreation program and public visitation by providing safe recreation facilities, healthy recreation experiences, and visitor assistance and protection, as well as for real estate functions to support recreation management by other lessees, agencies and partners.

Hydro: N/A

ES: $56,000 – Funding provides for performance of environmental stewardship activities which protects the health, sustainability and integrity of the public lands associated with this project. Activities include natural resource management practices, environmental evaluations and reviews, shoreline protection, cultural resource investigations, water quality control, boundary line inspection, and encroachment resolution.

WS: $6,000 – Funding provides for performance of annual activities required to support the negotiation, revision and/or coordination of water supply contracts, and addresses local and congressional interests and concerns for water needs affecting public health and welfare.

OTHER INFORMATION: FY2008 flood damages prevented were $4.672M, FY2008 recreation visits were 935K, and FY2008 visitor expenditures were $31.09M.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wolf Creek Dam, Lake Cumberland, KY

AUTHORIZATION: River and Harbor Act 1946

LOCATION AND DESCRIPTION: Wolf Creek Dam is located on the Cumberland River at mile 460 in Russell County, KY. The project consists of an earth & concrete gravity dam, hydropower plant & a flood storage reservoir with recreation & stewardship areas.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $4,988,002
CONFERENCE FOR FY 2010: T: $8,500,000
BUDGET FOR FY 2011: M: $218,000 **O:** $7,871,000 **T:** $8,089,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,133,000 - funding provides for routine operations and maintenance at minimum levels. Joint operations are necessary to maintain flood control operation of the Cumberland River.

Rec: $1,735,000 - funding provides for critical health & safety maintenance & services at minimally acceptable levels for designated recreation areas, including access points, overlooks, day use areas & campgrounds

Hydro: $4,820,000 - funding provides for routine operations & maintenance for hydroelectric power plant & hydropower joint costs for operation & maintenance of dam. Funds would allow power plant & dam to accomplish missions of providing low cost reliable electric power by maintaining high availability & peak availability and to maintain control of the river.

ES: $361,000 - funding provides for the management of natural resources including operation, safety, environmental compliance, maintenance of the project boundary line, shoreline management, & cultural resources. Funds will assure sustainability of natural resources in accordance with the Corps Environmental Operating Principles & stewardship policies & prevent loss & degradation of more than 98,000 acres to project lands & water. Failure to fund will result in immediate degradation & loss of natural resources, including forests, water quality, shoreline habitat, & aesthetic value.

WS: $40,000 - funding provides for vital coordination with all water supply users for continuing major rehabilitation work & critical coordination with users in regard to keeping intakes under water & other relevant issues.

OTHER INFORMATION: Dam Safety Assurance Classification I 55-year old dam with HQ mandated lowered pool. Worsening, chronic seepage problems originating from 1940's foundation construction methods currently threaten the stability of Wolf Creek Dam. Dam failure would result in loss of life in excess of one-hundred lives. Inundation damages in the Nashville area alone are expected to exceed two billion dollars. Hydropower plant generates 965,000 MWH of energy annually, enough supply for 80,000 homes. Lake Cumberland ranks #14 in USACE for recreation with 4,000,000 project visits in FY07 with associated $82,000,000 in trip spending.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Woodcock Creek Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (P.L. 87-4)

LOCATION AND DESCRIPTION: Woodcock Dam is located on Woodcock Creek, 3.6 miles upstream from its confluence with French Creek at a point 37.1 miles up French Creek from its junction with the Allegheny River at Franklin, PA. The reservoir is located entirely within Crawford County, PA. Woodcock Creek Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 106,035
CONFERENCE AMOUNT FOR FY2010: T: $ 989,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 1,078,000 **T**: $ 1,078,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $881,000 - Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $182,000 – Operate and maintain recreation facilities, including a designated national recreational trail, boating, swimming, camping, fishing, hunting, and picnicing.

Hydro: N/A

ES: $15,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Yatesville Lake, KY

AUTHORIZATION: Section 204 of Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Yatesville Lake is located in Lawrence County, KY, on Blaine Creek, about 18 miles above the mouth. It is about 4 miles south of Yatesville and 5 miles west of Louisa. The dam is rockfill with a central impervious core, founded on in situ overburden. The maximum height is 105 feet above the streambed with a crest length of 760 feet. The uncontrolled broad crested spillway is located approximately one-half mile southeast of the dam.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $638,000
CONFERENCE FOR FY 2010: T: $1,086,000
BUDGET FOR FY 2011: M: $0 **O**: $1,154,000 **T**: $1,154,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $884,000 – Funding provides for routine operations and maintenance for flood and coastal storm damage reduction, including required inspections to enhance the quality of American life by reducing flood risk to both life and property, providing benefits to individuals, communities, and the national economy.

Rec: $227,000 – Funding provides for routine operations and maintenance to provide recreational opportunities to the public to enhance the quality of American life by providing benefits to individuals, communities, the national economy, and the environment.

Hydro: N/A

ES: $43,000 – Funding provides for routine operations and maintenance for environmental stewardship to provide management of natural and cultural resources to achieve healthy, sustainable conditions, and foster healthy lands and waters by balancing public uses and needs.

WS: N/A

OTHER INFORMATION: Yatesville Lake has prevented over $23,000,000 in damages over the course of its operation. Project visitation for FY 2009 totaled 221,849.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Youghiogheny River Lake, PA and MD

AUTHORIZATION: Flood Control Act approved 28 June 1938 (P.L 75-761)

LOCATION AND DESCRIPTION: The dam is located on the Youghiogheny River about 74.2 miles above its junction with the Monongahela River at McKeesport, PA, and 1.2 miles above Confluence, PA. The reservoir is located in Fayette and Somerset Counties, PA, and Garrett County, MD. Youghiogheny River Lake is a multi-purpose reservoir.

RECOVERY ACT ALLOCATIONS AS OF 31 DEC 2009: T: $ 502,000
CONFERENCE AMOUNT FOR FY2010: T: $ 2,219,000
BUDGET FOR FY2011: M: $ 0 **O**: $ 2,358,000 **T**: $ 2,358,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

F&CSDR: $1,665,000 – Accomplish flood reduction mission by operation of the dam, water control management, dam safety inspections, required safety related analysis and studies, and real estate outgrant management.

Rec: $580,000 – Operate and maintain recreation facilities including boating, water skiing, swimming, camping, fishing, hunting, and picnicing.

Hydro: N/A

ES: $88,000 - Accomplish shoreline management, threatened/endangered species surveillance, cultural resource protection/preservation, invasive species eradication, and protection of natural resources.

WS: $25,000 – Prepare water supply contract for execution with The Municipal Authority Westmoreland County, PA.

OTHER INFORMATION: N/A

DIVISION: Great Lakes and Ohio River DISTRICT: Pittsburgh

Youghiogheny River
Lake, PA and MD

MISSISSIPPI VALLEY DIVISION

MISSISSIPPI VALLEY DIVISION
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Justification of Estimates for Civil Works Activities
Department of the Army, Corps of Engineers
Fiscal Year 2011

SUMMARY MISSISSIPPI VALLEY DIVISION

	FY 2010 Conference Allocation	FY 2011 Request	Increase or Decrease
Investigations	$ 37,235,000	$35,928,000	- 1,307,000
Survey	29,917,000	18,928,000	- 10,989,000
Preconstruction Engineering and Design	7,318,000	17,000,000	+ 9,682,000
Construction	$102,614,000	$68,017,000 1/	- 34,597,000
Operation and Maintenance	$ 385,365,000 2/	$399,076,000	+ 13,711,000
GRAND TOTAL, MISSISSIPPI VALLEY DIVISION	$525,214,000	$503,021,000	- 22,193,000

1/ Includes $350,000 from the Inland Waterways Trust Fund.
2/ Includes 1 percent withheld for emergency activities in accordance with FY 2010 Energy and Water Development Act.

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Fargo, ND-Moorhead, MN Metro (Red River of the North Basin, MN, ND, SD and Manitoba, Canada) St Paul District (Feasibility)	4,139,000	0	600,000	889,0001/	2,500,000 2/	150,000	0
(Preconstruction Engineering and Design)	15,000,000	0	0	0	0	15,000,000	0

1/ Includes $600,000 proposed reprogramming

2/ Includes Recovery Act Allocations to Date ($222,000)

The cities of Fargo, North Dakota, and Moorhead, Minnesota, are located on the Red River of the North in eastern North Dakota and western Minnesota. Average annual flood damages in the Fargo-Moorhead metropolitan area are estimated at more than $73 million. The Fargo-Moorhead metropolitan area has a relatively high risk of flooding; the metropolitan area's population is projected to increase from 174,000 people in 2000 to more than 218,000 in 2015, and much of that development is expected in areas between the 100-year and 500-year flood elevations. The highest river stages usually occur as a result of spring snowmelt, but summer rainfall events have also caused significant flood damages. The Red River of the North has exceeded the National Weather Service flood stage of 17 feet in 51 of the past 107 years, and every year from 1993 through 2009, with the flood of record occurring in 2009. The study area is between the Wild Rice River, the Sheyenne River, and the Red River of the North; interbasin flows complicate the hydrology of the region and contribute to extensive flooding. Without a comprehensive flood risk management project in the area, the metropolitan region will continue to be subject to flooding and will rely on emergency responses to prevent flood damage in the community. A 905(b) analysis approved in April 2008 recommended a feasibility study for flood damage reduction in the study area. The cities of Fargo, North Dakota, and Moorhead, Minnesota are the local sponsors and a feasibility cost share agreement was executed in September 2008.

Funds requested for Fiscal Year 2011 will be used to complete the feasibility phase. The estimated cost of the feasibility phase is $8,000,000, which is generally to be shared on a 50-50 percent basis by the Federal and non-Federal interests, Costs for the Independent External Peer Review will be 100 percent Federal ($278,000). The feasibility study is scheduled for completion in December 2010. FY 2011 Preconstruction Engineering and Design funds will be used for hydraulics and hydrology modeling; physical modeling of structures; topographic, geotechnical, cultural and cultural mitigation surveys along part of the diversion alignment; preliminary design of the Red River Control Structure and fish passage facilities; project management and planning; environmental coordination; plans and specifications for the diversion outlet; an initial railroad agreement for design of two bridges and rail yard modifications. The local sponsor will use their required portion of the funds to design the northern-most of the 20 bridges required for the project.

The average net benefits of a project are expected to exceed $11 million annually, all for flood and coastal storm damage reduction. The tentatively recommended plan will be a diversion channel around the Fargo-Moorhead community at a cost of nearly $1 billion and a Federal cost of nearly $650 million. Based on the latest economic analysis completed in October 2009 the diversion plan had a benefit-cost ratio of 1.22 to 1.0. The cities of Fargo, North Dakota, and Moorhead, Minnesota are the likely local sponsors for PED and construction although another local entity could be identified. There is significant local interest in this project and the local entities understand the requirements of both PED and construction. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

A summary of study and PED cost sharing is as follows:

STUDY			PRECONSTRUCTION ENGINEERING AND DESIGN			
Total Estimated Study Cost	$8,000,000		Total Estimated PED Costs	$20,000,000	Total Estimated PED Costs	$20,000,000
Reconnaissance Phase (Federal)	N/A	3/	Initial Federal Share	15,000,000	Ultimate Federal Share	13,000,000
Feasibility Phase (Federal)	4,139,000		Initial Non-Federal Share	5,000,000	Ultimate Non-Federal Share	7,000,000
Feasibility Phase (Non-Federal)	3,861,000					

3/ The Reconnaissance Phase is funded under the overall study authority for the Red River of the North Basin.

The project is not authorized for construction. Cost sharing will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1986, as amended by the Water Resources Development Act of 1996. Fiscal Year 2010 funds are being utilized to continue the feasibility study. Funds requested for Fiscal Year 2011 will be used to complete the feasibility phase and initiate PED with a scheduled completion date of September 2011.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Alton to Gale Organized Levee Districts, Illinois and Missouri (Deficiency Correction) (Continuing).

LOCATION: The levee system is located adjacent to the Mississippi River between Alton, Illinois, and Gale, Illinois, (Mississippi River miles 46-202).

DESCRIPTION: The project involves repairing levee slides and the stabilization of levee slopes to prevent failure during high water events. The recommended plan requires the use of a Lime/Fly-Ash Injection process to repair the levee slides. Unprogrammed portion reflects an estimate to repair the identified design deficiencies.

AUTHORIZATION: Flood Control Acts of 1936, 1938, 1946; Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: To be determined. The letter report is currently being revised to propose a long term solution to the design deficiency issues that exist within eleven of the levee districts located in the Alton to Gale levee system.

TOTAL BENEFIT-COST RATIO: 6.8 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 13.9 to 1 at 2.5 percent (FY 1968).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Deficiency Corrections draft Letter Report dated April 2003 at October 2002 price level.

RISK INDEX: 880

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA:

	Original Project	
Actual Federal Cost (COE)	$ 87,516,000	
Actual Federal Cost (Jobs Bill)		1,954,000[1]
Actual non-Federal Cost Cash Contributions Other Costs		(Not available)
Total Original Project Cost		$ 89,470,000

[1] Funds provided by the Productive Employment Appropriation Act of 1983 (PL 98-8) enacted 24 March 1983 (Jobs Bill).

SUMMARIZED FINANCIAL DATA (CONTINUED)

Remedial Work

				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$ 19,548,000	
Programmed Construction		12,008,000		
Unprogrammed Construction		7,540,000		
Estimated Non-Federal Cost			4,374,000	
Programmed Construction		456,000		
Cash Contributions	456,000			
Other Costs	0			
Estimated Non-Federal Cost				
Unprogrammed Construction		3,918,000		
Cash Contributions	3,918,000			
Other Costs	0			
Total Estimated Programmed Construction Cost			$101,934,000	
Total Estimated Unprogrammed Construction Cost			11,458,000	
Total Estimated Project Cost			113,392,000	
Allocations to 30 September 2007			101,378,000 [2]	
Allocations for FY 2008			93,000	
Allocations for FY 2009			287,000	
Recovery Act Allocations to Date			0	
Conference Allowance for FY 2010			283,000	
Allocation for FY 2010			283,000	
Allocations through FY 2010			102,041,000 [3]	94
Allocation Requested for FY 2011			150,000	94
Programmed Balance to Complete After FY 2011			TBD [3]	
Unprogrammed Balance to Complete After FY 2011			TBD	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Programmed Work	65	TBD
Entire Project		Indefinite

PHYSICAL DATA

Levees	183.3 miles

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[2] Includes $1,954,000 provided by PL 98-8 enacted 24 March 1983 (Jobs Bill).

[3] Cost estimate will be updated upon finalization of the Deficiency Correction Letter Report.

JUSTIFICATION: Construction of the levees was completed in 1977. For many years some reaches of this levee system have been experiencing a significant number of slides, reducing the ability of the levee system to provide the authorized level of protection. It has been determined that the slides are due to a design deficiency. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain).

FISCAL YEAR 2010: Current year funds are being used as follows:

Planning, Engineering, and Design	$283,000
Total	$283,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Planning, Engineering, and Design	$ 150,000
Total	$150,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 25 percent of the costs allocated to flood control remedial work and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	$ 4,374,000	$0
Total Non-Federal Costs	$ 4,374,000	$0

The local sponsors of cost-shared remedial work will be required to make all payments concurrent with project construction.

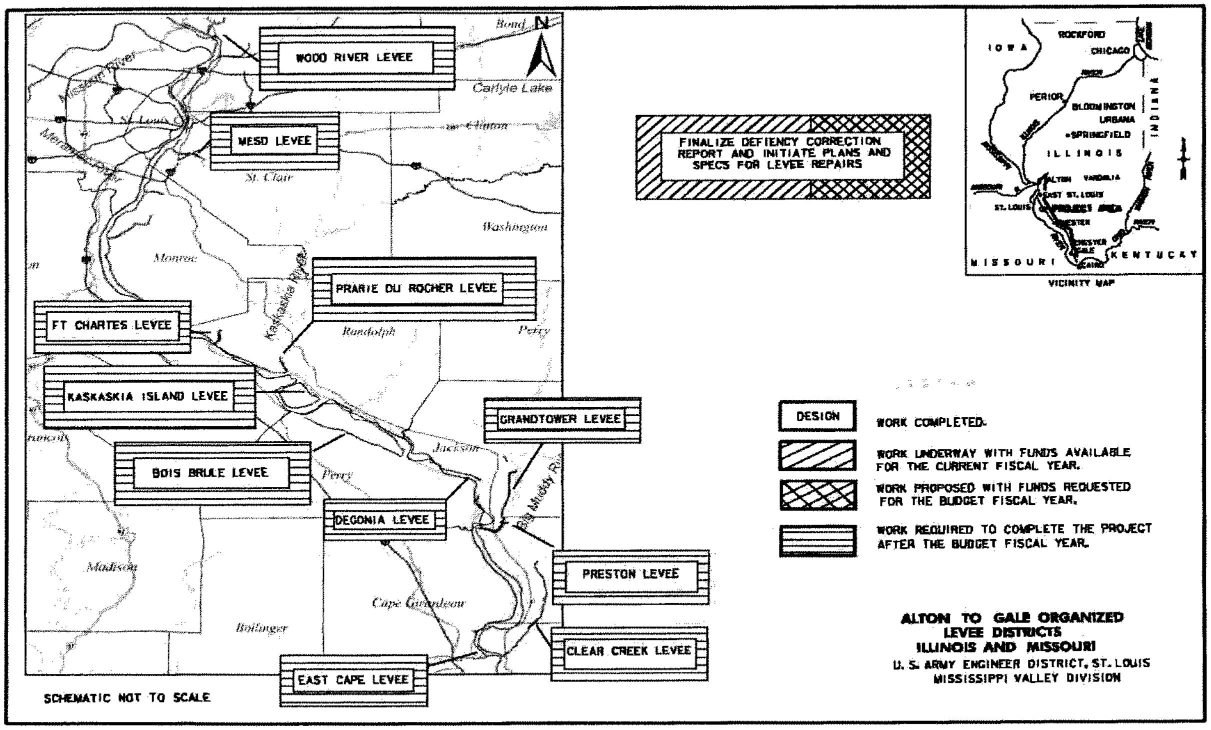
STATUS OF LOCAL COOPERATION: Formal assurances were received prior to construction of the original project. Supplemental assurances have been executed for the remedial work that is 100 percent Federally funded for repair of 12.4 miles of levee located in Prairie du Rocher, Degognia-Fountain Bluff, Grand Tower, and Metro East Drainage and Levee Districts. Supplemental assurances for the remedial work that is to be cost shared in accordance with the provisions

of the Water Resources Development Act of 1986 (Public Law 99-662) will be scheduled upon completion and approval of the deficiency report. This report will provide an update to the 1986 letter report and address a long-term solution to the problem for the entire levee system.
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $109,018,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Finding of No Significant Impact (FONSI) was signed on 7 September 1989 and was distributed to public agencies and officials. An Environmental Assessment (EA) is being prepared as part of the letter report and will be distributed to public agencies and officials for review.

OTHER INFORMATION: Funds to initiate construction of the remedial work were appropriated in Fiscal Year 1989. Previous funding included actual cost of $87,516,000 for the construction of the original project, completed in 1977, and $1,954,000 provided by the Productive Employment Appropriation Act of 1983 (Public Law 98-8). The scheduled completion date is being determined. This project has not been presented to Congress since Fiscal Year 1998. The design deficiency results from levee slides that have occurred because highly plastic clay material was improperly used in the original construction. The Assistant Secretary of the Army (Civil Works) has agreed to 100 percent Federal cost for repair of 12.4 miles of levee located in Prairie du Rocher, Degognia-Fountain Bluff, Grand Tower, and Metro East Drainage and Levee Districts. In November 2000, the St. Louis District Corps of Engineers received permission to pursue the repair of the slides at full Federal expense. A contract was awarded in August 2001 to repair 44 existing slides at 100 percent Federal cost, and completed September 2002. The ASA(CW) also requested an update to the 1986 letter report to address a long-term solution to the problem for the entire levee system. The deficiency correction report, when completed, will address a long-term solution for levee slides over the entire levee system. The letter report was initiated in Fiscal Year 2001 and submitted to the Mississippi Valley Division (MVD) for approval in April 2003. The engineering and design funds received in Fiscal Year 2008 were used to resolve MVD's review comments and finalize the draft report, including Independent External Peer Review (IEPR). The number of slides continues to increase and flooding in the spring and summer of 2008 has severely worsened the slides. Repairs to many of the levees are scheduled under PL 84-99. However, the PL84-99 repairs are only a temporary solution and do not fully address the deficiency. The current cost estimate reflects October 1997 price levels and will be updated after the deficiency correction letter report is finalized.

Corps' policy requires cost sharing for the remaining areas, which include Grand Tower, Degognia-Fountain Bluff, Prairie du Rocher, Metro East, Clear Creek, Kaskaskia Island, East Cape, Bois Brule, Fort Chartres, Preston, and Wood River Drainage and Levee Districts.


WOOD RIVER LEVEE
MESD LEVEE
PRARIE DU ROCHER LEVEE
FT CHARTES LEVEE
KASKASKIA ISLAND LEVEE
BOIS BRULE LEVEE
DEGONIA LEVEE
GRANDTOWER LEVEE
PRESTON LEVEE
CLEAR CREEK LEVEE
EAST CAPE LEVEE
Bond
Carlyle Lake
Clinton
St. Louis
St. Clair
Washington
Monroe
Kaskaskia River
Randolph
Perry
Jackson
Big Muddy River
Madison
Cape Girardeau
Bollinger
N
SCHEMATIC NOT TO SCALE
FINALIZE DEFIENCY CORRECTION REPORT AND INITIATE PLANS AND SPECS FOR LEVEE REPAIRS
DESIGN
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
ALTON TO GALE ORGANIZED LEVEE DISTRICTS
ILLINOIS AND MISSOURI
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
IOWA
ROCKFORD
CHICAGO
PERIOR
BLOOMINGTON
URBANA
SPRINGFIELD
ILLINOIS
INDIANA
ALTON
VANDALIA
EAST ST. LOUIS
ST. LOUIS
PROJECT AREA
CHESTER
GALE
CAIRO
MISSOURI
KENTUCKY
VICINITY MAP

APPROPRIATION TITLE: Construction – Channels and Harbors (Flood Control)

PROJECT: Chain of Rocks Canal, Mississippi River, Illinois, (Deficiency Correction) (Continuing)

LOCATION: The Chain of Rocks Canal is located on the Mississippi River adjacent to river miles 184 to 194.4 in Madison County, Illinois.

DESCRIPTION: The recommended plan for deficiency correction involves the installation of relief wells and construction of berms and a pump station. All work is programmed.

AUTHORIZATION: The original project was authorized by the River and Harbor Act of 2 March 1945.

REMAINING BENEFIT-REMAINING COST RATIO: 7.3 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 7 3/8 percent (FY 1999).

BASIS OF BENEFIT-COST RATIO: Based on the Chain of Rocks Design Deficiency Report dated July 1997 at October 1996 price levels.

RISK INDEX: 458

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA 1/

	Original Project	
Actual Federal Cost		$59,260,000
Actual Non-Federal Cost		0
Cash Contributions	$ 0	
Other Costs	0	
Total Original Project Cost		$59,260,000

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	42	To Be Determined

PHYSICAL DATA

The proposed plan provides for correcting underseepage deficiencies on the nine-mile long levee, installing new relief wells, replacing nonfunctional relief wells, utility relocations landside of the levee, adding fill to berms and filling in low areas, constructing a 155 cfs pump station, and constructing wetland mitigation features.

Mississippi Valley Division St. Louis District Chain of Rocks Canal, Mississippi River, Illinois (Deficiency Correction)

SUMMARIZED FINANCIAL DATA (CONTINUED)

Reme dial Work		ACCUM PCT OF EST FED COST (Remedial Work Only)
Estimated Federal Cost	$54,800,000	
Estimated Non-Federal Cost	$0	
Cash Contributions	0	
Other Costs	0	
Total Estimated Remedial Cost	$54,800,000	
Total Estimated Project Cost	$114,060,000	
Allocations to 30 September 2007	$ 23,993,000	
Allocation for FY 2008	4,080,000	
Allocation for FY 2009	2,392,000	
Recovery Act Allocations to Date	10,344,000	
Conference Allowance for FY 2010	6,141,000	
Allocation for FY 2010	6,141,000	
Allocations through FY 2010	46,950,000	86
Allocation Requested for FY 2011	5,385,000	96
Programmed Balance to Complete after FY 2011	TBD	
Unprogrammed Balance to Complete after FY 2011	0	

1/ Allocations included for Remedial work only.

JUSTIFICATION: This project is receiving a higher funding priority in the budget than its remaining benefit-remaining cost ratio would normally allow because it addresses significant risk to human safety in accordance with the Army Corps of Engineers performance-based guidelines for the construction account. The Chain of Rocks Canal Levee System consists of a dual line of levees running parallel to the canal constructed as part of the Chain of Rocks Canal, Illinois, navigation project. The operation and maintenance of these levees is a 100 percent Federal responsibility. The eastern line of this levee system serves as an integral part of the main line levee protection to the East St. Louis and vicinity area. The east levee has demonstrated inadequate underseepage performance during past floods. Quick conditions and sand boils developed on the landside of the levee during high river stages. The original design assumptions related to the coefficients of permeability for the aquifer and top stratum materials were incorrect. The relief well system was found to be deficient. The levee, as originally designed, relies on the impoundment of water against the landside toe of the levee in order to maintain levee stability; however, development over the last 40 years has prevented effective use of this method. Correction of the deficiencies will assure the integrity of the levee system and help to provide urban level protection for the East St. Louis metropolitan area. Failure of the levee would affect a population of 250,000 mainly low income residential neighborhoods and a heavily industrialized area with total property values of approximately $1.4 billion.

The Budget includes funding primarily to address a significant risk to human safety. The Corps made this determination based on many factors such as the likelihood and magnitude of the potential flooding, the number of people living in the flood plain, the likely warning time, the availability of evacuation routes, and site-specific engineering factors. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain).

Average annual benefits for the deficiency correction are as follows:

Annual Benefits	Amount
Flood Damage Reduction	$ 2,618,000
Navigation	29,000
Total	$ 2,647,000

FISCAL YEAR 2010: Current year funds are being used as follows:

Berms	5,640,000
Maintenance During Construction	15,000
Mitigation	29,000
Planning, Engineering and Design	257,000
Construction Management	200,000
Total	6,141,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Berms	$1,000,000
Pump Station	3,835,000
Maintenance During Construction	25,000
Planning, Engineering and Design	300,000
Construction Management	225,000
Total	$5,385,000

NON-FEDERAL COST: The project is 100 percent Federal.

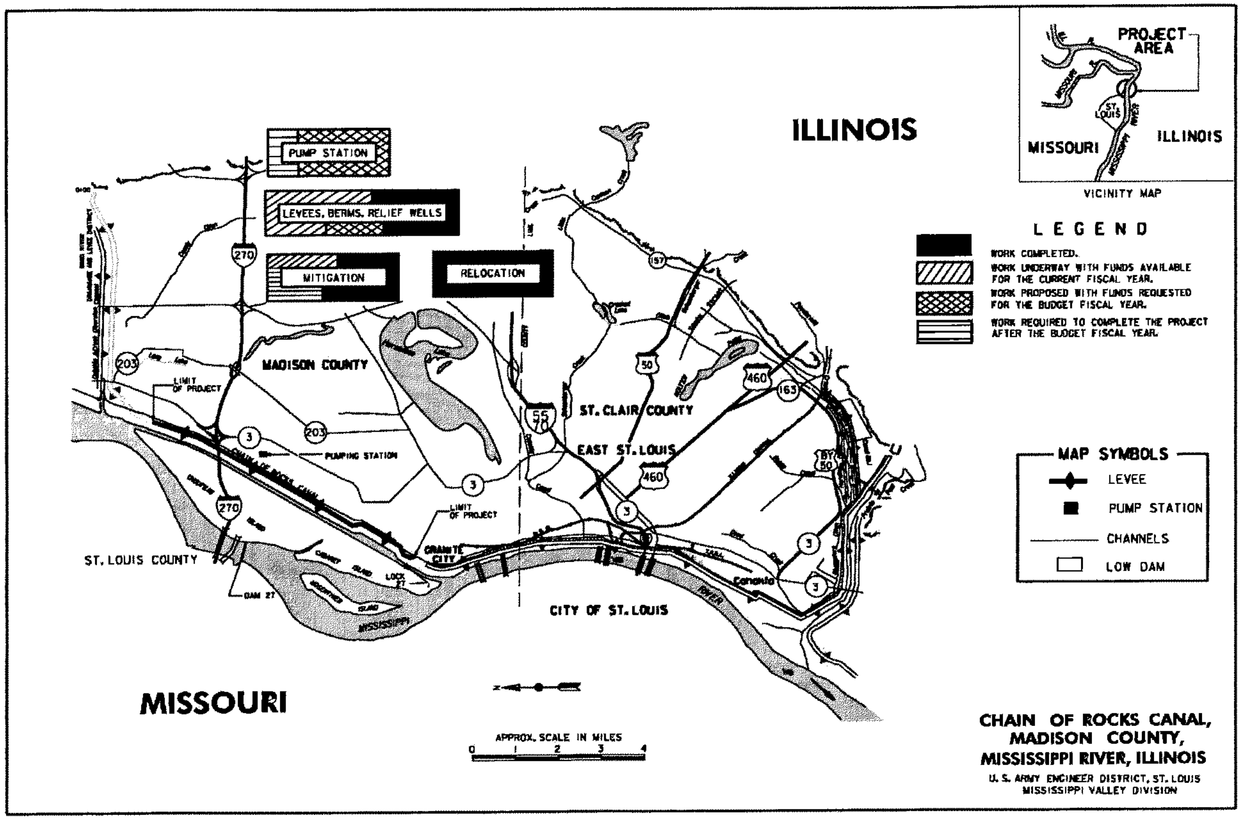
STATUS OF LOCAL COOPERATION: Not applicable.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $54,800,000 is an increase of $1,400,000 from the latest estimate ($53,400,000) presented to Congress (FY 2010). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ -800,000
Post Contract Award and Other Estimating (including Contingency Adjustments)	2,200,000
Total	$1,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment resulted in a Finding of No Significant Impact (FONSI), which was signed 21 May 1996. A second FONSI for revised plans was signed 14 August 2002.

OTHER INFORMATION: Previous funding included the actual cost of $59,260,000 for the construction of the original project, which was completed in Fiscal Year 1953. Funds to initiate construction for the remedial work were appropriated in Fiscal Year 1999. The deficiency report documented a need for a pumping station to handle 155 cubic feet per second in interior flows. Without this pump station, there is no means of handling the additional flows from newly installed relief wells. Award of the pump station contract is pending completion of the levee rehabilitation. Fish and Wildlife costs are $1,265,000.


ILLINOIS
MISSOURI
PROJECT AREA
ST. LOUIS
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MAP SYMBOLS
LEVEE
PUMP STATION
CHANNELS
LOW DAM
PUMP STATION
LEVEES, BERMS, RELIEF WELLS
MITIGATION
RELOCATION
MADISON COUNTY
ST. CLAIR COUNTY
EAST ST. LOUIS
ST. LOUIS COUNTY
CITY OF ST. LOUIS
GRANITE CITY
LIMIT OF PROJECT
PUMPING STATION
LOCK 27
DAM 27
MISSISSIPPI RIVER
270
203
3
55 70
50
460
163
157
APPROX. SCALE IN MILES
0 1 2 3 4
CHAIN OF ROCKS CANAL, MADISON COUNTY, MISSISSIPPI RIVER, ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

Mississippi Valley Division

St. Louis District

Chain of Rocks Canal, Mississippi River, Illinois
(Deficiency Correction)

1 Febr 2010

MVr ˆ0

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: East St. Louis, Illinois (Continuing)

LOCATION: The project is located in St. Clair and Madison Counties, Illinois, along the left bank of the Mississippi River between river miles 175 and 195 above the Ohio River.

DESCRIPTION: The project consists of the rehabilitation or closure of 21 small gravity drains, 10 large gravity drains (gatewells), 20 closure structures, and 300 relief wells; minor floodwall and levee repair work; rehabilitation of 12 pumping stations, 3 drainage control structures, and 6 channel segments; and replacement of 3 bridge structures and abandonment and removal of 4 bridge structures. All work, except bridges, is programmed. The bridge work, which is unprogrammed, was performed at 100 percent non-Federal cost. A Limited Reevaluation Report, that addresses design deficiencies controls for underseepage and throughseepage, is being developed with project funds.

AUTHORIZATION: Energy and Water Development Appropriations Act of 1988 (PL 100-202).

REMAINING BENEFIT-REMAINING COST RATIO: 12.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 6.9 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 5.6 to 1 at 8 7/8 percent (FY 1988).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Supplemental Project Report, completed March 1999.

RISK INDEX: 458

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$ 40,651,000	
Programmed Construction		40,651,000		
Unprogrammed Construction		0		
Estimated Non-Federal Cost			17,367,000	
Programmed Construction		13,409,000		
Cash Contributions	9,943,000 [1]			
Other Costs	3,466,000			
Estimated Non-Federal Cost				
Unprogrammed Construction		3,958,000		
Other Costs	3,958,000			
Total Estimated Programmed Construction Cost			$ 54 060,000	
Total Estimated Unprogrammed Construction Cost			3,958,000	
Total Estimated Project Cost			58,018,000	
Allocations to 30 September 2007			36,977,000	
Allocation for FY 2008			2,266,000	
Allocation for FY 2009			718,000	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			500,000	
Allocation for FY 2010			500,000	
Allocations through FY 2010			40,461,000	100
Allocation Requested for FY 2011			1,000,000[2]	102
Programmed Balance to Complete After FY 2011			TBD[2]	
Unprogrammed Balance to Complete After FY 2011			0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	96	TBD

PHYSICAL DATA	
Floodwall & Levee Work	
Small Gravity Drains	21
Large Gravity Drains	10
Closure Structures	20
Relief Wells	300
Pumping Stations	12
Drainage Control Structures	3
Bridge Replacements	3
Bridge Abandonment and Removal	4
Channels	6 segments

[1] A cash contribution of $12,842,000 is partially offset by a credit of $2,899,000 for work-in-kind on completed work.
[2] Cost estimate will be updated upon finalization of the Limited Reevaluation Report.

JUSTIFICATION: The original project, authorized by the Flood Control Act of 1936, provides protection for 85,000 acres consisting of business, industrial, residential, and metropolitan areas, including East St. Louis, Granite City, Madison, Venice, Brooklyn, Fairmont City, Sauget, and Cahokia Illinois. The urban design levee was designed to provide flood protection from the Mississippi River to a flood stage of 52 feet on the St. Louis, Market Street gage. The project protects the largest urbanized Mississippi River floodplain north of New Orleans. The rehabilitation project was authorized by the Energy and Water Development Appropriations Act of 1988. As a result of failure of a deteriorated roller gate, localized flooding occurred in 1986 leading to the evacuation of 1,200 residents and causing an estimated $35,000,000 in property damage. The need for extensive rehabilitation work was confirmed during preparation of a General Design Memorandum for the project during Fiscal Year 1990. A tax referendum, passed in February 1989, provides the Metro East Sanitary District with increased tax revenue necessary to cost share in the rehabilitation project and perform the necessary maintenance of the project after the rehabilitation work is completed. Because the levee system protects heavy industry (including chemical manufacturing facilities and steel mills) as well as hazardous/toxic chemical disposal sites (Sauget Area 1 Superfund Site/Sauget Area 2 Superfund site), failure of the levee could create an environmental disaster as well as adversely impact the economy. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual benefits, all flood control, are $30,159,000.

FISCAL YEAR 2010: Current year funds will be used as follows:

Planning, Engineering, and Design	$500,000
Total	$500,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete rehabilitation of North Pump Station	$450,000
Planning, Engineering, and Design	500,000
Construction Management	50,000
Total	$1,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 613,000	
Pay 23.9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's work-in-kind credit based on Section 215 of the Flood Control Act of 1968.	12,842,000	$ 426,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for construction of the project.	3,912,000	
Total Non-Federal Costs	$17,367,000	$ 426,000

Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The local sponsor, the Metro East Sanitary District, is strongly supportive of the project. A tax referendum passed in February 1989, provided sufficient funds for local sponsorship of the project. Three Project Cooperation Agreements were executed for this project. The Project Cooperation Agreement for the first construction item was executed in November 1989. The second Project Cooperation Agreement was executed on 11 December 1990. The third Project Cooperation Agreement was executed on 11 March 1992. Amendment No. 1 to the third Project Cooperation Agreement, crediting the local sponsor for costs of work-in-kind (Clearing & Excavation of Drainage Channels), was executed on 9 August 1994. Amendment No. 2, executed on 2 September 1997, allows the Corps to award a contract for the previously identified work-in-kind and adds mitigation as a project cost feature. A Third Party Agreement, executed in August 1999 between Metro East Sanitary District and Canteen Creek Drainage District, eliminated the requirement for a fourth Project Cooperation Agreement for this project. The current non-Federal cost estimate of $17,367,000, which includes a cash contribution of $12,842,000, is an increase of $9,763,000 from the non-Federal cost estimate of $7,604,000 noted in the Project Cooperation Agreement, which included a cash contribution of $7,062,000. In a financial document dated 19 May 1999, the non-Federal sponsor indicated they are financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

In order to restore the authorized level of protection to the levee, additional work will be needed to address critical underseepage and through-seepage problems that manifested themselves during the floods of 1993, 1995 and 2008. The project sponsor has been notified that these problems are the result of design deficiency issues that will be addressed in the Limited Reevaluation Report (LRR). Any additional deficiency corrections measures, as outlined in the LRR, will be separate from this East St. Louis rehabilitation project. The Project Partnership Agreement (PPA) for the deficiency correction project will be processed concurrently with the LRR, including language allowing accelerated funding of the non-Federal share, and is currently scheduled to be executed in September 2010. The PPA will be executed with the Metro East Sanitary District and future sponsors (Madison County Flood Prevention District, St. Clair County Flood Prevention District and Southwest Illinois Flood Prevention District Council). These future sponsors will have a central role in providing project funding for deficiency correction construction work. The Metro East Sanitary District will continue to be responsible for operation and maintenance of the levee.

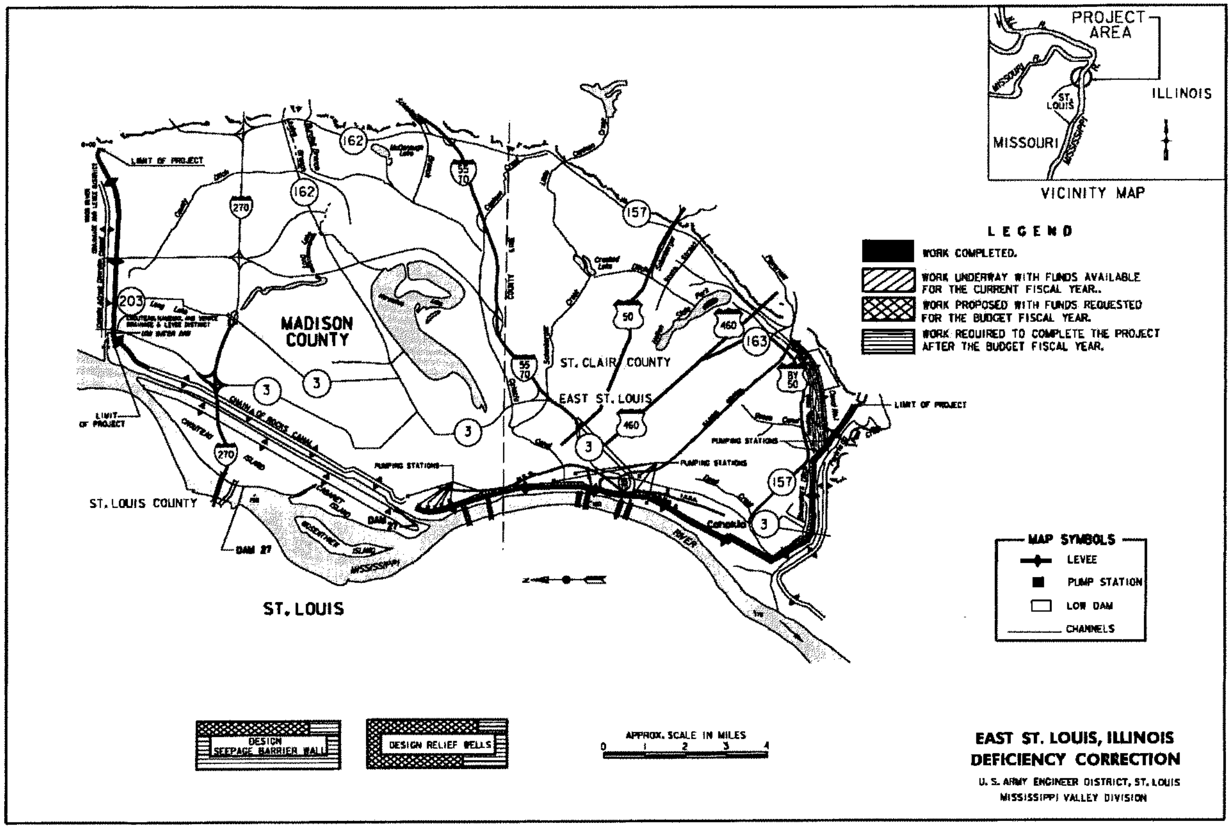
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $40,651,000 is the same as the last estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The project consists of rehabilitation of existing facilities and, for the major part of the project, will not affect environmental conditions except for short-term localized impacts. An environmental assessment and Finding of No Significant Impact was signed by the District Commander on 1 August 1991. With respect to future deficiency correction work, an Environmental Assessment is being developed in conjunction with the LRR.

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1988.

As a result of the drainage ditch clearing and excavation, mitigation was approved as a project cost per amendment Number 2 to the third Project Cooperation Agreement and was accomplished on project lands. The current cost estimate reflects October 2007 price levels..

Fish and Wildlife mitigation costs are $19,000.


PROJECT AREA
ILLINOIS
ST. LOUIS
MISSOURI
VICINITY MAP
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MAP SYMBOLS
LEVEE
PUMP STATION
LOW DAM
CHANNELS
MADISON COUNTY
ST. CLAIR COUNTY
EAST ST. LOUIS
ST. LOUIS COUNTY
ST. LOUIS
LIMIT OF PROJECT
LIMIT OF PROJECT
LIMIT OF PROJECT
PUMPING STATIONS
PUMPING STATIONS
PUMPING STATIONS
DAM 27
CHAIN OF ROCKS CANAL
MISSISSIPPI
RIVER
162
162
270
270
203
3
3
3
3
3
55 70
55 70
157
157
50
460
460
163
BY 50
DESIGN SEEPAGE BARRIER WALL
DESIGN RELIEF WELLS
APPROX. SCALE IN MILES
0 1 2 3 4
EAST ST. LOUIS, ILLINOIS
DEFICIENCY CORRECTION
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Larose to Golden Meadow, Louisiana (Hurricane Protection) (Continuing)

LOCATION: The project is located in Lafourche Parish, Louisiana, about 28 miles southwest of New Orleans and about 25 miles inland from the Gulf of Mexico along Bayou Lafourche, south of the Gulf Intracoastal Waterway, extending from Larose to Golden Meadow, a distance of about 16 miles.

DESCRIPTION: The project consists of a ring levee approximately 48 miles in length encircling the areas along Bayou Lafourche from Larose to Golden Meadow and extending approximately 9,800 feet from each side of the bayou. Enlargement of about 3 miles of the existing levee at Golden Meadow and construction of floodgates on Bayou Lafourche at the upper and lower limits of the protection system will be used for navigation and hurricane protection purposes. A Post Authorization Change Report is required because of increased construction costs and post Katrina changes in design and construction criteria.

AUTHORIZATION: Flood Control Act of 1965.

REMAINING BENEFIT - REMAINING COST RATIO: A new benefits to cost ratio will be calculated in the Post Authorization Change Report.

TOTAL BENEFIT - COST RATIO: A new benefits to cost ratio will be calculated in the Post Authorization Change Report.

INITIAL BENEFIT - COST RATIO: A new benefits to cost ratio will be calculated in the Post Authorization Change Report.

BASIS OF BENEFIT - COST RATIO: A new benefits to cost ratio will be calculated in the Post Authorization Change Report.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2005)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$568,417,150		Entire Project	95	TBD
Programmed Construction	$568,417,150					
Un-programmed Construction	$ 0					
Estimated Non-Federal Cost		$243,607,350				
Programmed Construction	$243,607,350					
Cash Contributions	$ TBD					
Other Cost	$ TBD					
Estimated Non-Federal Cost						
Un-Programmed Construction	$ 0					
Cash Contributions	$					
Other Cost	$					

SUMMARIZED FINANCIAL DATA (CONTINUED)

Total Estimated Programmed Construction	$812,024,500	
Total Un-Programmed Construction	$0	
Total Estimated Project Cost	$812,024,500	
Allocations to 30 September 2007	84,050,000	
Allocations for FY 2008	$29,979,500	
Allocations for FY 2009	957,000	
Recovery Act Allocations To Date	6,200,000	
Conference Allowance for 2010	5,800,000	
Allocations for FY 2010	5,800,000	
Allocations Thru FY 2010	126,986,500	22
Allocation Requested for FY 2011	$5,500,000	23
Programmed Balance to Complete After FY 2011	435,930,650	
Un-programmed Balance to Complete After FY 2011	0	

PHYSICAL DATA

Levees	Floodgates	Drainage Structures
Loop levee approximately 40 miles in length along both banks of Bayou Lafourche; enlargement of three miles of levees at Golden Meadow; eight miles of low interior levee to regulate intercepted drainage.	2	Local Pumping Stations

JUSTIFICATION: The project area is of great economic importance to the State of Louisiana, and includes lands and improvements having an aggregate value of approximately $203,904,000 (1995 prices). The population of the area was 20,000 in 1980 and has increased steadily to 23,865 in 2000. While oil and gas production, commercial fisheries, and related service industries dominate the economy of the area, there is a wide spectrum of economic activity.

Situated within a region of high hurricane incidence (on the average, two hurricanes threaten the Louisiana coast every three years), the project area is highly vulnerable to overflow from the tidal surges which accompany hurricanes. The highest flood stage during the hurricane of 1915 was 5.5 feet at Golden Meadow, taken from a high-water mark. Should a hurricane similar to that of 1915 move through the area, damages of approximately $10,962,000 (1995 prices) could be expected. Hurricane Juan (1985) was accompanied by flooding of 6.6 feet, as recorded on the Leeville, LA gauge. Damages sustained during Hurricane Juan were $35,000,000 and at current prices (1995), $44,866,000. The flood duration was from two days to one week. Damages began at 3 feet, with significant damages at 4.5 feet. Should a major hurricane approaching the standard project hurricane in intensity move through the area, the entire project area would be submerged in the tidal surge, and monetary damages would likely amount to $86,811,000 (1995 prices). This damage would include minor crop losses, but the bulk of the damage would consist of physical damage to residential, commercial, and industrial establishments. Residential and commercial facilities are valued at $52,000,000 (1971 prices), excluding contents, plus $3,500,000 (1971 prices), or $207,713,000 (1995 price levels). Average annual damages with the project are negligible (zero), while without the project they are $14,947,000 (1995 price levels). Flood damages prevented on future developments were determined by projecting future damages at rates equal to the projected population growth and bringing them back to present value by applying a discount rate of 3-1/4 percent.

Present values were then amortized for the life of the project to obtain average annual benefits on future damages prevented. The relationship between depth of flooding and percent damage of structures and contents was derived from detailed studies of flood damages in the coastal area of Louisiana for four hurricanes, Carla (1961), Hilda (1964), Betsy (1965) and Camille (1969). These in-depth studies were made for flood insurance rate studies conducted by the U.S. Army Corps of Engineers for the Federal Insurance Administration.

Based on the latest hydraulic modeling the project no longer provides 100-year level of risk reduction. The models show the existing project elevations are, in some locations, as much as 10 feet less than required to provide 2060 100-year level of risk reduction. Recent surveys have also revealed that the system is about 12-18 inches deficient in elevation for the authorized project. To provide increased level of risk reduction a Post Authorization Changer Report is required. The draft Post Authorization Change Report is estimated to be completed in the third quarter of Fiscal Year 2011.

Lafourche Parish has been determined to be an area of "substantial and persistent" unemployment.

The average annual benefits will be calculated in the Post Authorization Change Report.

Annual Benefits	Amount
Flood Control	TBD
Area Redevelopment	TBD
Total	TBD

FISCAL YEAR 2010: The current amount is being applied as follows:

Post Authorization Change Report	$2,800,000
Larose Floodwall Construction Contact	3,000,000
Total	$5,800,000

FISCAL YEAR 2011: The requested amount will be used as follows:

IEPR	$500,000
Finalize Post Authorization Change Study	$5,000,000
Total	$5,500,0000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1965, the Non-Federal sponsor must comply with the requirements listed below:

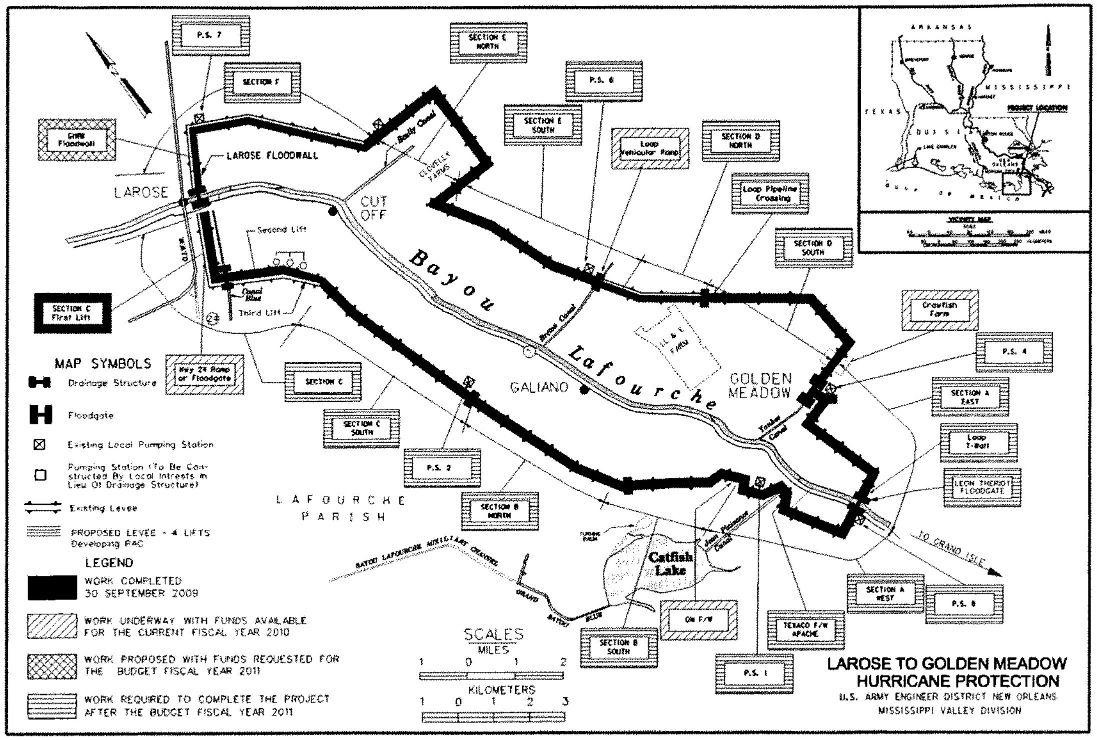
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, including borrow and dredged material disposal areas (as applicable).	$5,631,000	
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.	$108,716,000	
Pay 30 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken as an integral part of the project after authorization and in accordance with construction schedules as required by the Chief of Engineers.	$129,260,350	
Bear all cost of operation and maintenance including replacements.		$ 224,913
Total Non-Federal Cost	$243,607,350	$ 224,913

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Assurances covering all requirements of local cooperation were received from the South Lafourche Levee District and accepted on behalf of the United States on 29 August 1973. The South Lafourche Levee District has requested and received funds from the State of Louisiana for rights-of-way acquisition and relocations required to support construction work. In addition to lands and damages and relocations, the South Lafourche Levee District has accomplished levee construction, pumping station and administrative/operating work.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 May 1974. A draft supplement to the Environmental Impact Statement covering the revised levee alignments, previously unidentified wetland impacts, and necessary mitigation, was filed with the Environmental Protection Agency on 20 July 1984, and the final supplement was filed with the Environmental Protection Agency on 1 March 1985. An Environmental Assessment covering the revised levee alignment for Section D-North was distributed for review on 3 December 1990, and a Finding of No Significant Impact for the revised alignment was signed on 8 March 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1967, and funds to initiate construction were appropriated in Fiscal Year 1972.



Mississippi Valley Division

New Orleans District
(Hu
1 Febr 2010

Larose to Golden Meadow, Louisiana
rricane Protection)
MV' 2

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Monarch-Chesterfield, Missouri (Continuing)

LOCATION: The project is located along the right bank of the Missouri River between river miles 46.0 and 38.5. The existing private levee system is 11.5 miles long and protects approximately 4,240 acres from the 100-year flood event.

DESCRIPTION: The Chesterfield project is located along the right bank of the Missouri River between river miles 46 and 38.5. The existing private levee system is 11.5 miles and protects approximately 4,240 acres from the 1 percent annual occurrence flood event (100-year). During the Great Flood of 1993, the existing levee failed causing flood damages in excess of $200,000,000. The project consists of raising the existing levees on the Missouri River and Bonhomme Creek to provide protection from a .2 percent annual occurrence flood event (500-year) along with relief wells, a sheet pile cutoff, and berms to control underseepage. Other features include roadways, railroad and roadway closure structures, retaining walls, relocations, pumping stations with gravity structures, and environmental mitigation features. All work is programmed.

AUTHORIZATION: The Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 7.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.8 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Feasibility Report approved in December 2000 at 2000 price level as amended by the Flood Control Study Supplement, dated June 2003.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$44,647,000	Entire Project		20	TBD
Estimated Non-Federal Cost		24,041,000				
Cash Contributions	$ 3,434,000				PHYSICAL DATA	
Other Costs	20,607,000			Levee:	11.5 miles	
Total Estimated Project Cost		$68,688,000		Pump Stations:	4 (222cfs; 44.5cfs; 133.5 cfs; 273.5 cfs)	
Allocations to 30 September 2007		2,344,000		Large Gravity Drains:	8	
Allocation for FY 2008		1,096,000		Relief Wells:	33	
Allocation for FY 2009		3,349,000		Mitigation features:	12.94 acres	
Recovery Act Allocations to Date		2,243,000		Sheetpile cutoff wall:	1,100 feet long by 50 feet deep	
Conference Allowance for FY 2010		3,147,000				
Allocation for FY 2010		3,147,000		Berms:	150 to 300 feet wide and 5 to 15 feet thick	
Allocations through FY 2010		12,179,000	27	Road closure structure:	2	
Allocation Requested for FY 2011		3,439,000	35	Railroad closure structure:	1	
Programmed Balance to Complete after FY 2011		29,029,000				
Unprogrammed Balance to Complete after FY 2011		0				

JUSTIFICATION: During the Great Food of 1993 the levee system breached causing 250 businesses, comprising over 3,000,000 square feet of commercial development to close, 50 residences were evacuated, Interstate 64/U.S. Route 40 was closed for three weeks as were other transportation routes into the area, the Spirit of St. Louis Airport was closed for nearly three months, and the St. Louis County Correctional Institution was forced to evacuate inmates to temporary quarters for up to six months. Estimated flood damages totaled in excess of $200,000,000. The present value of properties that will be protected by the project are $505,000,000. The average annual benefits, all flood control, are $8,871,099. Average annual damages without the project are $9,355,226, while the average annual damages with the project are $484,127, a reduction of 95 percent.

FISCAL YEAR 2010:

	Initiate pump stations	$1,781,000
	Planning, Engineering, and Design	1,036,000
	Construction Management	330,000
	Total	$3,147,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

	Construct two Pump Stations	$2,303,000
	Planning, Engineering, and Design	855,000
Construction	Management	281,000
	Total	$3,439,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts contained in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Annual Payments During Construction and Reimbursements	Operation Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way.	$13,061,000	$0
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	30,000	$0
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103(m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986) as amended; and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	10,950,000	$80,506
Total Non-Federal Costs	$24,041,000	$80,506

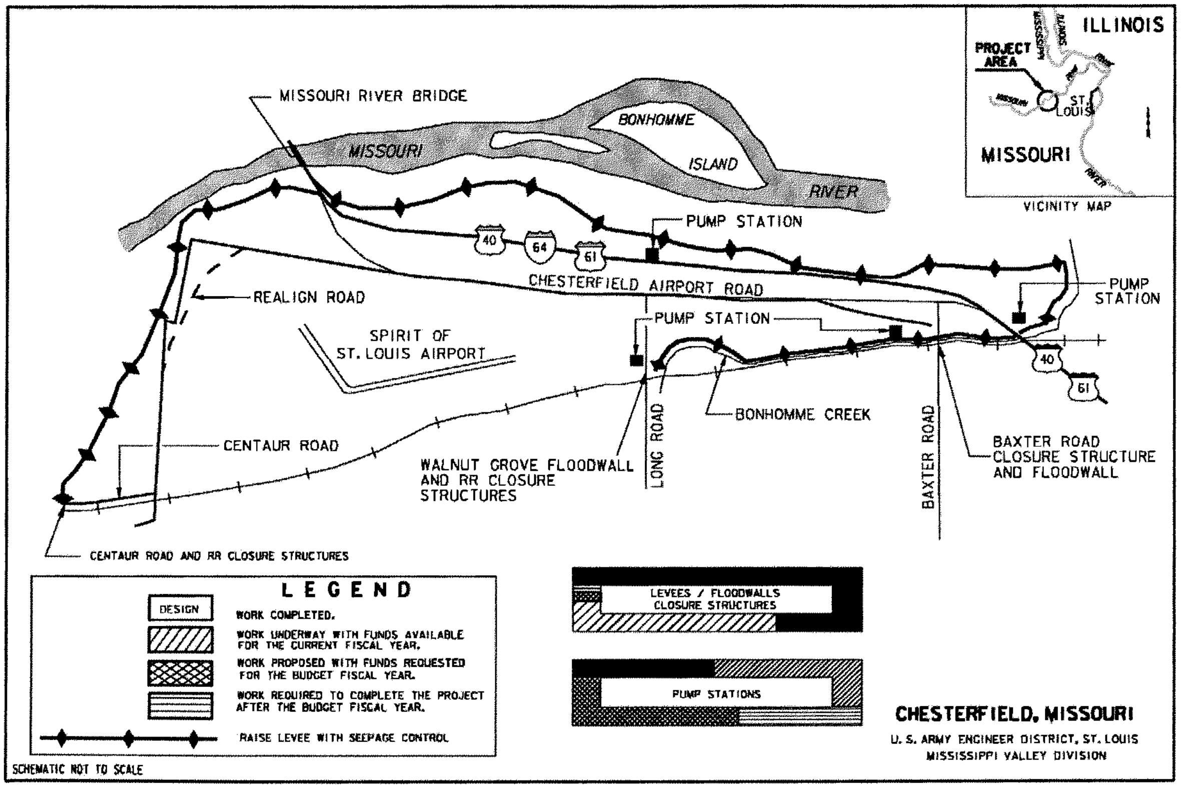
STATUS OF LOCAL COOPERATION: The local sponsor for this project is the Monarch-Chesterfield Levee District. The Project Cooperation Agreement was executed 1 February 2008. The local sponsor has received approval from the Assistant Secretary of the Army (Civil Works) for three credit applications of work. These applications included: 1) construction of three pump stations within the protected area, 2) levee improvement from Centaur Road to Interstate 64/U.S. 40, and 3) realignment of the levee near Boone's Crossing Interchange and levee improvement along the left bank of Bonhomme Creek. The Levee District has not been reimbursed for the credits.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $44,647,000 is the same as that last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with EPA in October 2000 and published in the Federal Register on 9 November 2000.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2001. Funds to initiate construction were appropriated in FY 2004.

Fish and wildlife mitigation costs are $447,000.


ILLINOIS
PROJECT AREA
ST. LOUIS
MISSOURI
VICINITY MAP
MISSOURI RIVER BRIDGE
MISSOURI
BONHOMME
ISLAND
RIVER
PUMP STATION
40
64
61
CHESTERFIELD AIRPORT ROAD
REALIGN ROAD
SPIRIT OF ST. LOUIS AIRPORT
PUMP STATION
PUMP STATION
CENTAUR ROAD
WALNUT GROVE FLOODWALL AND RR CLOSURE STRUCTURES
LONG ROAD
BONHOMME CREEK
BAXTER ROAD
BAXTER ROAD CLOSURE STRUCTURE AND FLOODWALL
CENTAUR ROAD AND RR CLOSURE STRUCTURES
LEGEND
DESIGN
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
RAISE LEVEE WITH SEEPAGE CONTROL
LEVEES / FLOODWALLS CLOSURE STRUCTURES
PUMP STATIONS
CHESTERFIELD, MISSOURI
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SCHEMATIC NOT TO SCALE

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: St. Louis Flood Protection, Missouri and Illinois – Deficiency Correction (Continuing)

LOCATION: The St. Louis Flood Protection Project is located in St. Louis, Missouri, on the right bank of the Mississippi River between Miles 176.3 and 187.2, above the mouth of the Ohio River.

DESCRIPTION: The existing project consists of 11-miles of flood protection by combination of 35,614 feet of floodwalls, 20,700 feet of levees, 33 street and railroad closure structures, 28 pump stations, gravity drains, subdrains, relief wells, sheet pile cutoff walls, and pressure sewer emergency closure gatewells. The project protects approximately 3,160 acres of industrial and commercial development. The flood protection system was constructed with inadequate closure structures and underseepage protection. These design deficiencies must be corrected to ensure that the system provides its authorized level of service. The recommended rehabilitation includes replacing swing gates at 20 closure structures, permanently closing openings at 13 closure structures, installing 70 new relief wells and replacing 103 existing relief wells needed to improve underseepage control, and planting hardwoods to mitigate for 0.1 acre of impact. All work is programmed.

AUTHORIZATION: Public Law 84-256 dated 9 August 1955.

REMAINING BENEFIT-REMAINING COST RATIO: 66.8 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 5.4 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Reconstruction Reevaluation Report at October 2005 price level.

RISK INDEX: 3,337

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		13,100,000	
Estimated Non-Federal Cost		7,054,000	
Cash Contributions	7,054,000		
Other	0		
Total Estimated Project Cost		$20,154,000	
Allocations to 30 September 2007		1,538,000	
Allocation for FY 2008		1,993,000	
Allocation for FY 2009		3,500,000	
Recovery Act Allocations to Date		2,713,000	
Conference Allowance for FY 2010		535,000	
Allocation for FY 2010		535,000	
Allocations through FY 2010		10,279,000	78
Allocation Requested for FY 2011		100,000	79
Programmed Balance to Complete after FY 2011		2,721,000	
Unprogrammed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	10	TBD

PHYSICAL DATA:

Levee (main line)	11 miles
Relief wells – existing	103
Relief wells – new	70
Closure structures	33

JUSTIFICATION: The flood frequency against which protection is to be provided is 800-year. River stage exceeds flood stage in approximately 1 out of every 2 years at the St. Louis Flood protection. For the design event and the without project condition, the average depth and velocity affecting most of the area is 22 feet and 7 feet per second, respectively. For the design event and the without project condition, the average warning time affecting most of the area is 12 hours, and the limiting factor to leave most of the benefit area is several dozen roads. During the flood of 1993, the system's current flood of record, portions of the levee experienced unexpected seepage problems that had to be handled on an emergency basis. The flood of record occurred during the summer of 1993 when the St. Louis gage recorded 49.58 ft. River elevations were above flood stage from 3 April to 7 October 1993. The frequency interval of that event was approximately 300-years. The project endured two other significant flood events: 43.3 feet on the St. Louis gage in 1973 and 41.9 feet on the St. Louis gage in 1995. The most recent flood was in 2002 which was approximately 37 feet on the St. Louis gage and was approximately an 8-year flood. In 1993, a severe underseepage floodwall foundation blow out occurred immediately east of Riverview Boulevard. On July 22, 1993, with a Mississippi River level at 46.9 feet on the St. Louis gage, a geyser of seepage water and foundation material that was gushing up from underneath the floodwall monolith on the landside of the floodwall was observed to be 4 feet high and 18 inches in diameter. With the floodwall monolith in imminent danger of collapse from loss of foundation materials that had eroded away by the uncontrolled seepage, extraordinary emergency flood fight measures were required to prevent disastrous flooding of the protected area. Hundreds of tons of crushed stone were rushed to the failing floodwall monoliths and dumped over the geyser, which slowed down the flows. During the ensuing months after the Flood of 1993, four floodwall monoliths were demolished, the foundation was replaced with a compacted clay backfill and a sheet pile cutoff wall to bedrock that completely blocks underseepage flows at this location, and the floodwall monoliths were reconstructed. The flood of 1993 showed that the City of St. Louis flood control project has a deficiency related to underseepage, and most likely will not function safely with floods of the design level of 52.0 feet on the St. Louis Gage because of inadequate underseepage control features. As time continues to pass without corrections being undertaken the probability that the project will fail continues to increase. As the flood protection continues to age, many components of the system will reach their design life. Flood fighting could be especially difficult if underseepage issues are not addressed. Even with proper maintenance, continued deterioration of the system and lack of correction will threaten the ability of the flood protection system to prevent interior damages from a major flood. If the City of St. Louis experiences a flood protection system failure during a major flood, inundation damages have been estimated at upwards of $1,000,000,000 in the City of St. Louis. The St. Louis Flood Protection levee protects a floodplain population of several hundred thousand people as well as major industrial and commercial businesses, one major sewage treatment plant, and several dozen roads. Deficiency corrections are necessary to ensure the proper functioning of the underseepage system of the existing project which protects a high value industrial area with significant transportation, power and sewage treatment infrastructures. The City of St. Louis would face potential risk to human safety and loss of jobs, property, and industrial production. Relief well failure can be sudden and catastrophic. The City of St. Louis and areas downstream would also incur significant environmental degradation due to the many chemical plants and a radioactive waste site in the protected area. Failure of the flood protection system would inundate areas that have nuclear contaminants, superfund sites, a sewage treatment plant, and industries such as plating factories. These contaminants would be redistributed with the floodplain and carried into the Mississippi River. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual damages without the project are $3,505,000 and with the project are $97,000. The average annual benefits for the total project, all flood control, are $3,429,000.

FISCAL YEAR 2010: The current year funds will be used as follows:

Closure gate construction/permanent closure	113,000
Planning, Engineering, and Design	117,000
Construction Management	305,000
Total	$535,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Planning, Engineering, and Design	25,000
Construction Management	75,000
Total	$100,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Annual Payments During Construction and Reimbursements Repl	Operation, Maintenance, Repair, Rehabilitation, and acement Costs
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control features.	$7,054,000	
Total Non-Federal Costs	$7,054,000	$94,500

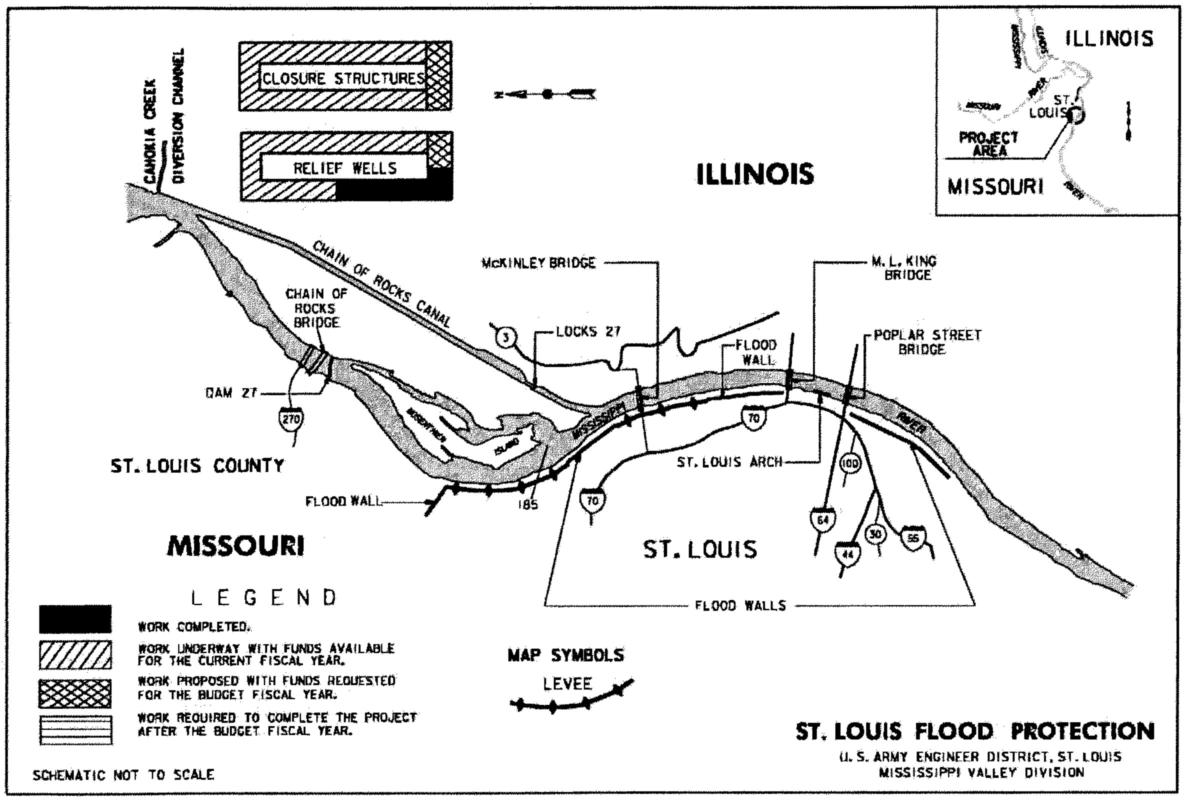
Local interests are also required to operate and maintain all works after completion.

STATUS OF LOCAL COOPERATION: The City of St. Louis is the local sponsor for the project. The Project Partnership Agreement was executed 29 February 2008.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $13,100,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was completed in July 2005 and a Finding of No Significant Impact was signed on 27 July 2005.

OTHER INFORMATION: Funds to initiate preconstruction, engineering, and design (PED) were appropriated in FY 2000. Funds to initiate construction were appropriated in FY 2008. This project requires minimal mitigation for removal of 0.1 acre of forest for relief well installation.


CLOSURE STRUCTURES
RELIEF WELLS
CAHOKIA CREEK
DIVERSION CHANNEL
ILLINOIS
MISSOURI
ST. LOUIS
PROJECT AREA
CHAIN OF ROCKS CANAL
CHAIN OF ROCKS BRIDGE
DAM 27
270
McKINLEY BRIDGE
LOCKS 27
3
FLOOD WALL
M. L. KING BRIDGE
POPLAR STREET BRIDGE
MISSISSIPPI
RIVER
ISLAND
70
ST. LOUIS ARCH
100
64
44
30
55
185
ST. LOUIS COUNTY
FLOOD WALL
FLOOD WALLS
ST. LOUIS
MISSOURI
L E G E N D
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
SCHEMATIC NOT TO SCALE
MAP SYMBOLS
LEVEE
ST. LOUIS FLOOD PROTECTION
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: West Bank and Vicinity, New Orleans, LA (Hurricane Protection) (Continuing)

LOCATION: The project is located along the west bank of the Mississippi River in the Vicinity of New Orleans in Jefferson, Orleans and Plaquemines Parishes.

DESCRIPTION: The recommended plan consists of new and enlarged levees along the permitted alignment which generally extends from the St. Charles/Jefferson Parish boundary line east along the existing Lake Cataouatche Levee to the Westwego/Bayou Segnette area, from the Westwego area along the existing V-levee alignment to the vicinity of the old Estelle Pumping Station and along the existing Harvey Canal-Bayou Barataria Levee tying into the floodwall at the Cousins Pump Station, then from the pump station to the navigable sector floodgate complex which is to be constructed in the Harvey Canal near the Cousins Pumping Station. Floodwalls will be used along the levee alignment mentioned above when tying into pumping stations and when land constraints dictate. The plan also provides for the construction of a navigable floodgate in the Harvey Canal just south of Lapalco Boulevard, and the construction of floodwalls along the east bank of the Harvey Canal generally along Peters Road south of Lapalco Boulevard. The existing levees adjacent to Algiers and Hero Canals will be raised, and the levee along the north bank of the Hero Canal will include a wave berm. Mitigation of significant environmental losses to bottomland hardwood and cypress swamp will be accomplished by acquisition of 1,312 acres of high quality wooded lands including wetlands and implementation of measures designed to primarily improve habitat quality. Deferred construction to address future changes in flood stages due to regional subsidence and sea level rise is unprogrammed.

AUTHORIZATION: Water Resources Development Acts of 1986, 1996 and 1999; Supplemental Appropriation Acts of 2006, 2008 and 2009

REMAINING BENEFIT to REMAINING COST RATIO: 8.0 to 1 at 7 1/8 percent. (Prior to Hurricane Katrina)

TOTAL BENEFIT-COST RATIO: 3.8 to 1 at 7 1/8 percent. (Prior to Hurricane Katrina)

INITIAL BENEFIT-COST RATIO: 3.8 to 1 at 7 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available economic analysis provided in the West Bank - East of Harvey Canal Feasibility Report approved in September 1994, updated to October 1998 price levels. Current cost increased after Hurricane Katrina to bring the New Orleans area up to 100 year protection as described below.

Greater New Orleans Area, Louisiana – Perimeter Protection encompassing the Lake Pontchartrain and Vicinity (LPV), and West Bank and Vicinity (WBV) Louisiana, projects:. The project consists of the following elements; Repair and restoration of existing and Construction of new system elements to include, Modifications of the Outfall Canals and Installation of Pump Stations and Closures as necessary, Improved protection of the Inner Harbor Navigation Canal (IHNC), Armoring critical elements, Floodwall reinforcement or replacement, Improvements to levees to provide 100-year protection and authorized Southeast Louisiana, LA (SELA) interior drainage improvements within Orleans and Jefferson Parishes.

RISK INDEX: 478

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$TBD			Westwego to Harvey		
Estimated non-Federal Cost		$			West of Algiers Canal		
Cash Contribution 511	$110,000,000				East of Algiers Canal		
Cash Contribution 70C	$390,000,000		1/		Lake Cataouatche		
Non-Cash Contribution	TBD				Entire Project [1]		
Total Estimated Project Cost		$TBD					
Allocations to 30 Sep 2009		$ 153,130,400	2/				
Allocations to 30 Sep 2009 - Supplemental Funds		1,345,000,000			PHYSICAL DATA		
Allocations FY 2010 (Reprogrammed In)		110,000,000			West of Algiers Canal Area		
Total Allocations thru FY 2010		$1,608,130,400			52 miles of earthen levees		
					4 miles of floodwalls.		
Allocations Requested For FY 2011		5,000,000			Sector Floodgate		
Programmed Balance to Complete After FY 2011		TBD			East of Algiers Canal Area		
					14 miles of levees		
					14 miles of floodwalls		
				TBD	Lake Cataouatche Area		
				TBD	10 miles of levees		
					2.5 miles of floodwalls		

1/ Funds appropriated for the non-Federal sponsor's deferred cash contribution to be repaid over 30 years.

2/ Funds were received to advance construction in the 96x3125 appropriation in the amount of $857,114,000 not included above.

JUSTIFICATION: The project area is generally bounded by the St. Charles/Jefferson Parish line to the west, the Mississippi River to north and east, and Barataria Bay and Lake Salvador to the south. Tidal waters can be carried into the project area through Lakes Cataouatche, Salvador and Barataria Bay which connect to the Gulf of Mexico through Barataria Bay, and into Bayou Segnette, Harvey Canal and Algiers Canal. Fresh water comes into the area from the Mississippi River via the Harvey and Algiers Locks, direct rainfall, and pumping from leveed areas.

Several hurricanes and tropical storms have passed through or near the project area, including the following major storms: the 1915 hurricane, the 1947 hurricane, and Hurricanes Flossy (1956), Hilda (1964), Betsy (1965), Carmen (1974), Babe (1977), Bob (1979), Danny (1985), Juan (1985), Andrew (1992), and Frances (1998). Hurricane Flossy brought torrential rains and tidal flooding to the project area, with nearby areas recording 16.7 inches of rain in a 24-hour period. Hurricane Hilda raised water levels at Barataria and Lafitte to 3.6 and 4.04 feet National Geodetic Vertical Datum, respectively. Hurricanes Betsy and Carmen also caused flooding to some parts of the project area. Hurricane Juan, generally characteristic of a storm event of approximately 25 years, broke high water records throughout the area, with stages in the Harvey Canal estimated to be the equivalent of a 60-year event. On the west bank, three local levees were breached and several subdivisions were flooded by tidal inundation and the long duration of the high stages. Extensive flooding occurred west of the Harvey Canal. The total precipitation from Hurricane Juan ranged from 8 to 12 inches over the project area. This storm clearly illustrated that the present local levee system is unable to provide protection against a tidal surge. The quick action and massive flood fighting efforts by the West Jefferson Levee District, the Parish of Jefferson, the National Guard, and thousands of volunteers prevented flooding of potentially catastrophic proportions.

Hurricane and Storm Damage Risk Reduction Project, New Orleans, Louisiana (HSDRRS): Hurricanes Katrina (August 2005) and Rita (September 2005) demonstrated the consequences of an ineffective protection system. These events caused catastrophic damage in southeast Louisiana resulting in a commitment from the Administration and the Congress to repair, restore and improve hurricane and storm damage risk reduction projects. The rebuilding of the hurricane protection system and the perceived level of commitment to the construction of significant improvements to the system will greatly affect the viability of communities in southeast Louisiana. The New Orleans area Hurricane and Storm Damage Risk Reduction System will provide risk reduction from hurricane storm surges and perform as a comprehensive, integrated system rather than a collection of individual projects. The new system will provide the greater New Orleans metropolitan area to include the most populous areas of Orleans, Jefferson, St. Bernard, Plaquemines and St Charles Parishes against a 100-year storm surge. Raising nearly 200 miles of floodwalls and levees 3 to 10 feet will protect the area from a surge that has a 1% chance of occurring each year. Armoring of high-risk locations of floodwalls and levees will improve resiliency during storm events. New pump stations, water control structures and floodgates will add perimeter protection to reduce the threat of storm surges to outfall canals and navigation channels. Improvements to drainage features will enhance the effectiveness of the interior drainage systems, under SELA. The West Bank Project will provide 1% risk reduction to approximately 78,000 acres of mostly urban land and more than 250,000 residents and several thousand businesses in Jefferson, Orleans, and Plaquemines parishes.

FISCAL YEAR 2010: The reprogrammed amount of $110,000,000 from the Lake Pontchartrain and Vicinity HSDRRS project will be applied as follows:

Construction providing 100-Year Level of Protection	$110,000,000

FISCAL YEAR 2011: The requested amount of $5,000,000 will be applied as follows:

Initiate Construction of the Belle Chase Polder Area of the Mississippi River Levee	$5,000,000
Total	$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 (PL 99-662), the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintena nce, and Repl acement Co sts
Provide lands, easements, and rights-of-way, and borrow and excavated material disposal areas.	$ TBD	$
Accomplish all alterations and relocations to utilities and facilities (other than railroad bridges) necessary for construction of the project.		
Pay 35 percent of the cost allocated to hurricane protection. Funds provided by non-Federal interests for the interim hurricane protection may be considered beneficial expenditures and may be credited as a part of the non-Federal contribution of the project pursuant to the Water Resources Development Act of 1986.		
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of all features of hurricane protection facilities.		
Total Non-Federal Costs	$ TBD	$

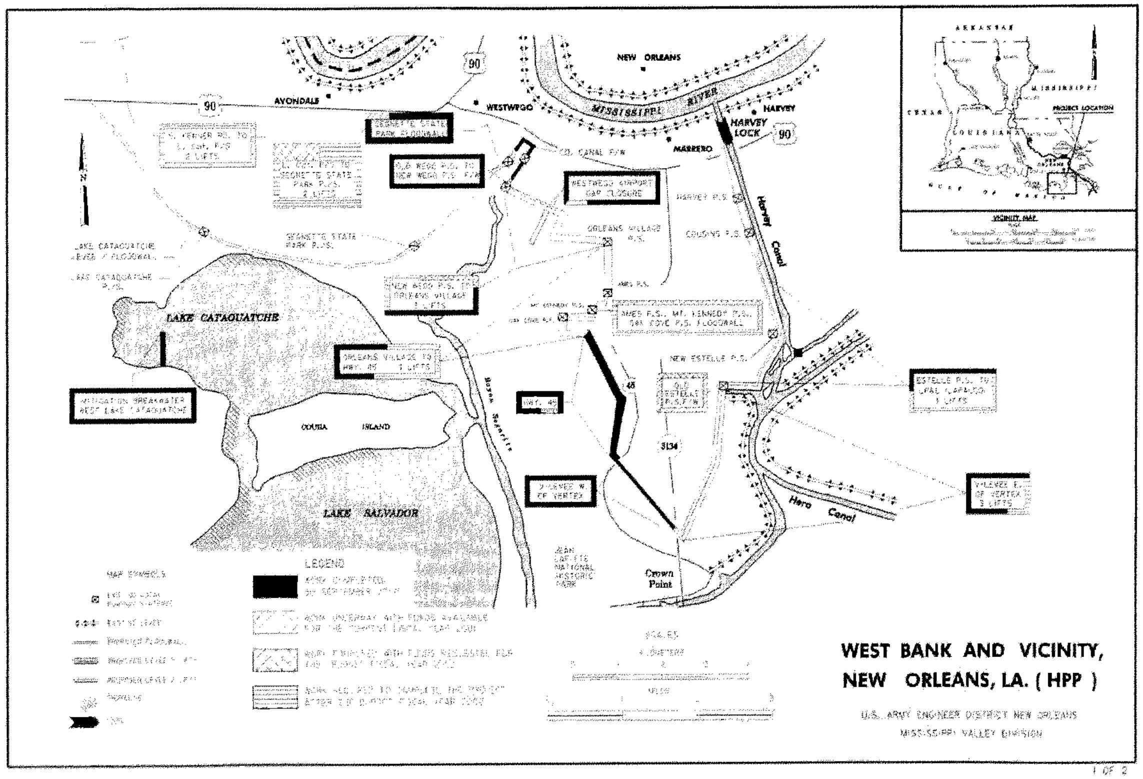
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement between the West Jefferson Levee District, previous local sponsor for the project, and the Federal Government was executed on 18 December 1990. Subsequent Memorandum of Agreement between the Louisiana Department of Transportation and Development (LADOTD) and the Federal Government, dated 16 May 1995, designated LADOTD as the project local sponsor. An amended Project Cooperation Agreement between LADOTD and the Federal Government was required for the east and west of the Algiers Canal and Lake Cataouatche area. The amended Project Cooperation Agreement (PCA) was executed 26 April 1999. Program Project Agreement was executed on 6 November 2008.

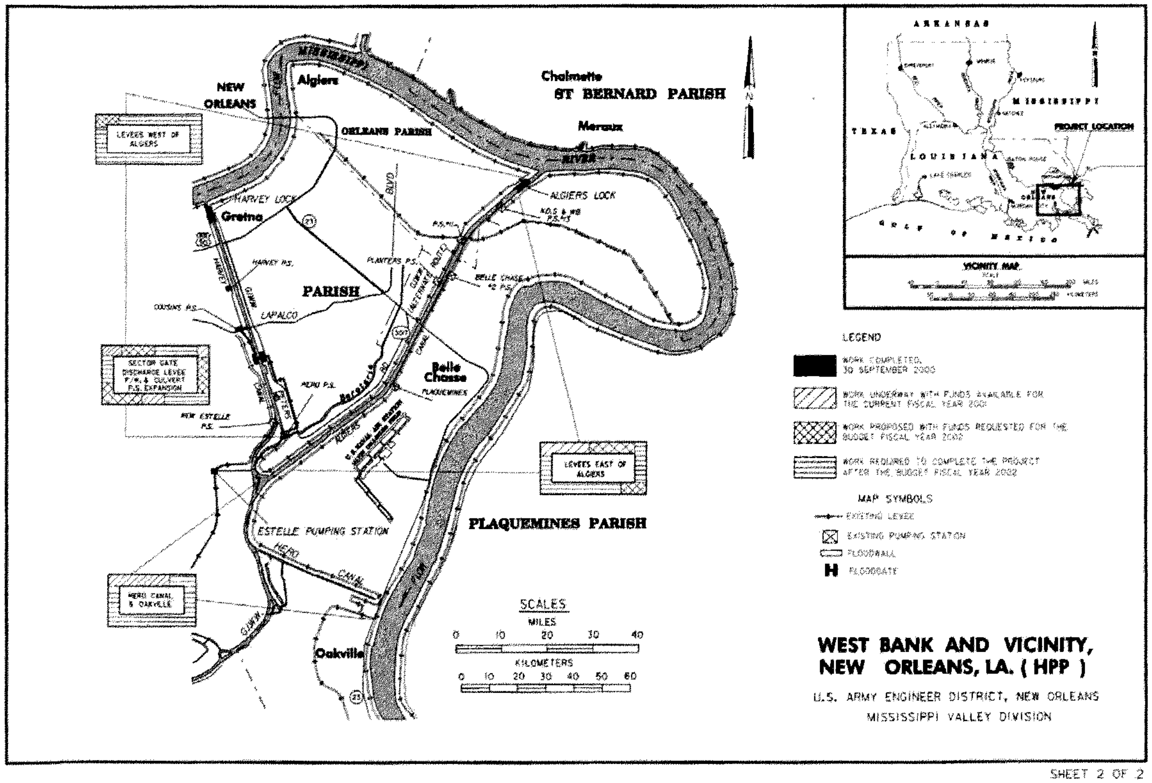
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate is TBD.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement Westwego Area was filed with the Environmental Protection Agency on 23 October 1987. The Record of Decision (ROD) was signed 28 March 1989. Environmental Assessments to address refinements in project design were prepared on 23 February 1990, June 1991, March 1992 and August 1993. A Finding of No Significant Impact (FONSI) was signed by the District Commander in each assessment. The final Environmental Impact Statement for the east and west of the Algiers Canal area was filed with Environmental Protection Agency on 30 September 1994. The ROD for East and West of Algiers Canal and Lake Cataouatche were signed on 28 September 1998. IERs 9, 10, 11, 11a, 11b and 12 were completed between June 12, 2008 and December 4, 2009.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design for the east and west of the Algiers Canal area were appropriated in Fiscal Year 1995, and funds to initiate construction were appropriated in Fiscal Year 1997. Funds to initiate preconstruction engineering and design for the Westwego Area were appropriated in Fiscal Year 1988 and funds to initiate construction were appropriated in Fiscal Year 1990. Construction was initiated in March 1991. A post authorization change report to expand the scope of this project to include the Lake Cataouatche area was approved in December 1996 and funds to initiate construction were appropriated in Fiscal Year 1999.

Approximately $48,000,000 is currently being made available in supplemental funds to provide advanced engineering measures by June 2011. The current request of $5,000,000 is to initiate construction of the Belle Chase Polder of the Mississippi River levee which, when completed will tie in the 100 year protection system within the Belle Chase area of the Mississippi River.


NEW ORLEANS
MISSISSIPPI RIVER
AVONDALE
WESTWEGO
HARVEY
MARRERO
HARVEY LOCK
90
Harvey Canal
Hero Canal
LAKE CATAOUATCHE
COUBA ISLAND
LAKE SALVADOR
Bayou Segnette
Crown Point
48
3134
SEGNETTE STATE PARK FLOODWALL
OLD WEGO P.S. TO NEW WEGO P.S. F/W
WESTWEGO AIRPORT GAP CLOSURE
MITIGATION BREAKWATER WEST LAKE CATAOUATCHE
ORLEANS VILLAGE TO HWY. 45 3 LIFTS
NEW WEGO P.S. TO ORLEANS VILLAGE 3 LIFTS
HWY. 45
V-LEVEE W. OF VERTEX
V-LEVEE E. OF VERTEX 3 LIFTS
ESTELLE P.S. TO CRAL CAPARCO 3 LIFTS
AMES P.S., MT. KENNEDY P.S., OAK COVE P.S. FLOODWALL
HARVEY P.S.
COUSINS P.S.
ORLEANS VILLAGE P.S.
AMES P.S.
NEW ESTELLE P.S.
OLD ESTELLE P.S. F/W
SEGNETTE STATE PARK P.S.
LAKE CATAOUATCHE P.S.
LAKE CATAOUATCHE LEVEE / FLOODWALL
CO. CANAL F/W
JEAN LAFITTE NATIONAL HISTORIC PARK
LEGEND
MAP SYMBOLS
SCALES
KILOMETERS
MILES
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
WEST BANK AND VICINITY,
NEW ORLEANS, LA. (HPP)
U.S. ARMY ENGINEER DISTRICT NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
1 OF 2


NEW ORLEANS
Algiers
ORLEANS PARISH
MISSISSIPPI
RIVER
Chalmette
ST BERNARD PARISH
Meraux
ALGIERS LOCK
LEVEES WEST OF ALGIERS
HARVEY LOCK
Gretna
HARVEY P.S.
PARISH
LAPALCO
COUSINS P.S.
SECTOR GATE DISCHARGE LEVEE P/W & CULVERT P.S. EXPANSION
NEW ESTELLE P.S.
PLANTERS P.S.
BELLE CHASE #2 P.S.
Belle Chasse
PLAQUEMINES
LEVEES EAST OF ALGIERS
ESTELLE PUMPING STATION
HERO CANAL
HERO CANAL & OAKVILLE
Oakville
PLAQUEMINES PARISH
SCALES
MILES
0 10 20 30 40
KILOMETERS
0 10 20 30 40 50 60
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
LEGEND
WORK COMPLETED 30 SEPTEMBER 2000
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2001
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2002
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2002
MAP SYMBOLS
EXISTING LEVEE
EXISTING PUMPING STATION
FLOODWALL
H FLOODGATE
WEST BANK AND VICINITY, NEW ORLEANS, LA. (HPP)
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI VALLEY DIVISION
SHEET 2 OF 2

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Wood River Levee, Illinois – Deficiency Correction and Reconstruction (Continuing)

LOCATION: The Wood River Levee Project is located in Madison County, Illinois, along the left bank of the Mississippi River between river miles 195 and 203 above the Ohio River.

DESCRIPTION: The proposed project includes rehabilitation of 21 miles of levee, replacing 163 of 170 existing relief wells and installing 60 new relief wells as a deficiency correction under the existing project authorization. Results of more detailed analysis indicate that seepage berms and possibly cutoff trenches may be required in lieu of relief wells. The reconstruction portion of the project includes gravity drains, pump stations, and closure structures.

AUTHORIZATION: Section 4 of Flood Control Act of 1938; Section 103 of Water Resources Development Act of 1986 as amended by Section 202 of Water Resources Development Act of 1996; Section 1001(20) of Water Resources Development Act of 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 8.16 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.57 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are based on the General Reevaluation Report dated March 2006 at October 2005 price level.

RISK INDEX: 55

BASIS OF RISK INDEX: The Risk Index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		24,427,000	
Estimated Non-Federal Cost		13,154,000	
Cash Contributions	13,012,000		
Other Costs	142,000		
Total Estimated Project Cost		37,581,000	
Allocations to 30 September FY 2007		1,231,000	
Allocation for FY 2008		321,000	
Allocation for FY 2009		2,632,000	
Recovery Act Allocations to Date		12,179,000	
Conference Allowance for FY 2010		1,105,000	
Allocations for FY 2010		1,105,000	
Allocations through FY 2010		17,468,000	72
Allocation Requested for FY 2011		1,098,000	76
Programmed Balance to Complete after FY 2011		5,861,000	

STATUS (1 Jan 2010)	PHYSICAL PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	0	TBD

PHYSICAL DATA:

Levee (main line)	21 miles
Relief wells - existing	170
Relief wells – new	60
Closure structures	26
Gravity drains	41
Pump stations	7

JUSTIFICATION: The levee district is protected by an urban design levee, across the Mississippi River from St. Louis and St. Charles counties in Missouri. This existing system includes approximately 21 miles of main line levee, 170 existing relief wells of which 7 are wells installed in 1985 and are not part of the deficiency correction, 26 closure structures, 41 gravity drains of which 3 have been fixed due to emergency, and 7 pump stations. It provides flood protection for residential, commercial, and industrial structures located within a 21.4 square mile area. There are approximately 13,700 acres of bottomland within the district and 4,700 acres of hill land tributary to the levee units. The study area lies in the Mississippi River flood plain of Madison County, Illinois, just upstream of the City of East St. Louis. The flood frequency against which protection is to be provided is 500 year. The maximum flood of record occurred in 1993 when the St. Louis gage recorded 49.58 feet which was approximately a 200-year flood at the Wood River levee. River stage exceeds flood stage in approximately three out of every four years at the Wood River levee. The most recent flood was in 2002 which was approximately 11 feet over flood stage and was about a 10-year flood. For the design event and the without project condition, the average depth and velocity affecting most of the area is 22 feet and 2 feet per second, respectively. In the event of a design flood, overtopping would occur and average warning time is estimated to be 24 hours; however, in case of catastrophic event occurrence (underseepage failure), estimated warning time is less than 6 hours. The limiting factor to leave most of the benefit area is several dozen roads. Certain reaches of the levee system could become unstable during high water events. Levee reaches that presented problems in 1993 will worsen while new reaches will present similar problems. Failure of this levee would produce tremendous economic loss and create an unprecedented environmental disaster as well as impact the defense and national security needs as the levee system protects a large refinery (10th largest U.S. refinery of gasoline, jet and diesel fuel), chemical manufacturing, and munitions production area as well as an urban residential area. It could adversely impact downstream levee systems (East St. Louis). At a conservative estimate of $125,000 per acre of clean up costs, a loss of this levee would result in environmental damages exceeding $2,000,000,000 not including the relocation costs of residents and future loss of agriculturally productive land. Development is expected to continue on the interior as a major Interstate Highway has recently opened in the levee district. The connection that this new highway makes to the regional interstate system increases the likelihood of future development in the project area. At current estimates, levee failure would cost approximately $1,500,000,000 in economic damages to residential, commercial and industrial buildings and would shut down transport between Illinois and Missouri at St. Louis as bridge approaches could be submerged. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the flood plain). The average annual damages without the project are $3,865,000, and with the project are $1,200,800. The average annual benefits for the project, all flood control, are $2,664,200.

FISCAL YEAR 2010: The current year funds will be used as follows:

	Planning, Engineering, and Design	1,105,000
Total		$ 1,105,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

	Continue Pump Station construction	$ 274,000
	Planning, Engineering, and Design	802,000
Con	struction Management	22,000
Total		$ 1,098,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Annual Payments During Construction and Reimbursements Repl	Operation, Maintenance, Repair, Rehabilitation, and acement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$ 142,000	
Pay 35 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control features.	$13,012,000	
Total Non-Federal Costs	$13,154,000 100,85	6

Local interests are also required to operate and maintain all works after completion.

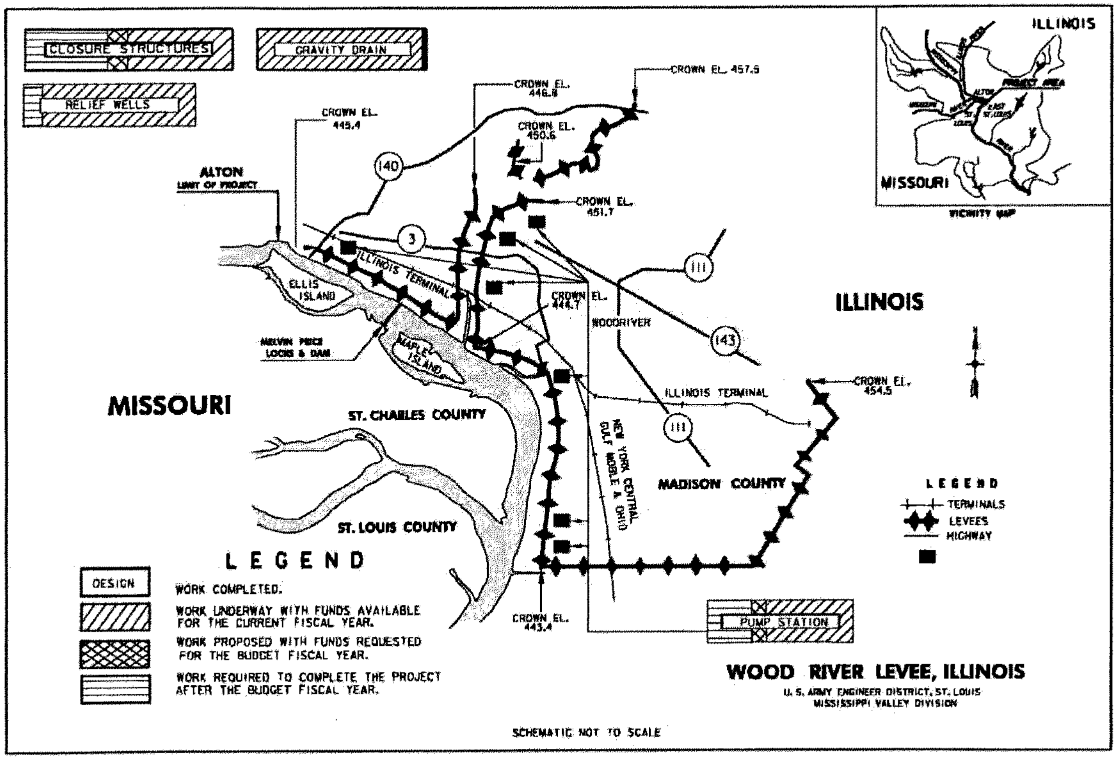
STATUS OF LOCAL COOPERATION: The Wood River Drainage and Levee District is the local sponsor for the project. The Project Partnership Agreement was executed on 30 June 2008.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $24,427,000 is the same as the latest estimate submitted to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment was completed in July 2005. A Finding of No Significant Impact was signed on 23 March 2006.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2000, and construction funds were appropriated in FY 2008. Correction of performance problems that resulted from deficiencies (relief wells) would not require further authorization. Deficiency correction and reconstruction project features will be cost shared 65 percent Federal and 35 percent non-Federal in accordance with Section 103 of Water Resources Development Act of 1986, as amended by Section 202 of WRDA 1996.

This project requires no mitigation; however, that will likely change due to anticipated berm construction.


CLOSURE STRUCTURES
GRAVITY DRAIN
RELIEF WELLS
CROWN EL. 457.5
CROWN EL. 446.8
CROWN EL. 450.6
CROWN EL. 445.4
CROWN EL. 451.7
ALTON
LIMIT OF PROJECT
140
3
111
143
ILLINOIS TERMINAL
ELLIS ISLAND
MELVIN PRICE LOCKS & DAM
MAPLE ISLAND
CROWN EL. 444.7
WOODRIVER
ILLINOIS
ILLINOIS TERMINAL
CROWN EL. 454.5
MISSOURI
ST. CHARLES COUNTY
NEW YORK CENTRAL
GULF MOBILE & OHIO
MADISON COUNTY
ST. LOUIS COUNTY
LEGEND
TERMINALS
LEVEES
HIGHWAY
LEGEND
DESIGN
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
CROWN EL. 443.4
PUMP STATION
WOOD RIVER LEVEE, ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SCHEMATIC NOT TO SCALE
ILLINOIS
MISSOURI
ALTON
EAST ST. LOUIS
PROJECT AREA
VICINITY MAP

NAVIGATION

INVESTIGATIONS

1 February 2010

Project	Total Estimated Federal Cost $	Allocation Prior To FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (NAVIGATION)							
Bayou Sorrel Lock, LA New Orleans District	12,600,000	5,199,000	1,263,000	1,434,000	986,000	2,000.000	1,718,000

Bayou Sorrel Lock is a component of the Mississippi River and Tributaries (MR&T), Atchafalaya Basin, Louisiana Project. The lock provides navigation access, while maintaining a continuous line of protection against the MR&T project design flood flow. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7 feet National Geodetic Vertical Datum (NGVD). In order to maintain the level of flood protection provided by the Atchafalaya Basin, Louisiana Project, the lock must be modified or replaced. The need to modify Bayou Sorrel Lock presents an opportunity to address increasing navigation concerns at this lock. Planning, engineering, and design of the modification or replacement for flood reduction benefits were delayed until the optimum navigation plan could be studied. The feasibility study was completed in November 2003 and approved in March 2004. The flood control portion is fully Federally funded and justified under the Mississippi River and Tributaries project. The navigation portion was authorized in the Water Resources Development Act of 2007 (WRDA 07) at a cost of $9.6 million. Thirty-five percent design costs for the recommended plan were estimated at approximately $297 million with approximately $92 and $205 million being apportioned to the flood control and navigation components, respectively. The recommended plan, with an estimated Federal cost of $194.5 million and an estimated non-Federal cost of $102.5 million, consists of replacing the existing lock with a new 75- by 1,200- foot concrete chamber lock immediately adjacent to the existing lock. The average annual benefits amount to $20.7 million, all for navigation. The benefit-cost ratio is 2.7 to 1 based upon the latest economic analysis from 2007. Preconstruction engineering and design cost is 100 percent Federally funded.

Total Estimated Preconstruction Engineering and Design Costs	$12,600,000	Total Estimated Preconstruction Engineering and Design Costs	$12,600,000
Initial Federal Share	12,600,000	Ultimate Federal Share	12,600,000
Initial Non-Federal Share	0	Ultimate Non-Federal Share	0

Fiscal Year 2010 funds are being used to confirm the need for a Post Authorization Change Report (PAC). Thirty five percent Design cost estimate demonstrates that the project probably cannot be executed at the authorized amount of $9,600,000 included in WRDA 2007 for the Navigation component. Therefore, the need for a PAC must be determined and, if required, developed and submitted to Congress for authorization.

Funds requested for Fiscal Year 2011 will be used to confirm, and if needed, complete the Post Authorization Change Report
The project was authorized for construction by the Water Resources Development Act of 2007, Public Law 110-114. The costs of construction of the project are to be shared 50/50 with the Inland Waterways Trust Fund.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Mississippi Valley Division

Study	Total Estimated Federal Cost $	Allocation Prior To FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional To Complete After FY 2011 $
Calcasieu Lock, LA New Orleans District	$5,898,000	2,303,000	98,000	574,000	852,000	1,000,000	1,071,000

Calcasieu Lock is a feature of the Gulf Intracoastal Waterway between Appalachee Bay, Florida, and the Mexican Border Project. The lock is located east of the Calcasieu River, approximately 10 miles south of Lake Charles, Louisiana, in Calcasieu Parish. The lock prevents saltwater intrusion from the Calcasieu River into the Mermentau River basin, a major rice producing area. Calcasieu Lock, which was completed in 1950, has dimensions of 13 by 75 by 1,206 feet and is structurally sound. The lock is congested due to increasing traffic. Intracoastal Waterway Locks, Louisiana, a reconnaissance study completed in 1992, determined that there is an immediate need for capacity increases at Bayou Sorrel and Calcasieu Locks. The Calcasieu Lock Section 905(b) analysis supports a benefit-cost ratio of 1.2:1 for provision of a new lock and recommended proceeding with feasibility phase studies. The study is addressing the feasibility of measures to replace or supplement the existing lock to reduce navigation delays. The study is 100% Federally funded. The anticipated output of improved navigation efficiency is in accord with Administration policy.

Fiscal Year 2010 funds are being used to develop a HEC-RAS model to define without-project conditions, to continue economic evaluations of project benefits (including the certification of the benefits model), initiate preliminary design of alternative plans, and continue the environmental evaluation for the project. Tasks for 2010 leading into FY2011 also include the development and evaluation of geotechnical input for the project to begin the formulation of alternatives for the study.

Funds requested for Fiscal Year 2011 will be used to continue the feasibility study, including completion of the economic analysis, continuation of environmental analysis, and development of preliminary design of alternative plans.

FY2012 funding will be used to conclude economic, engineering and geo-tech studies for the project (with the exception of detailed soil testing).

Study tasks for 2013 include the Alternative Formulation Briefing and completion of the draft report and EIS, and all subsequent reviews.

The reconnaissance phase was completed in February 2001. The feasibility study is scheduled to complete in October 2014.

CONSTRUCTION

APPROPRIATION TITLE: Construction - Locks and Dams (Navigation)

PROJECT: J. Bennett Johnston Waterway - Mississippi River to Shreveport, Louisiana (Continuing)

LOCATION: The project is located in central and northwest Louisiana and provides a commercial navigation route from the Mississippi River at its juncture with Old River via Old and Red Rivers to Shreveport, Louisiana. The effected parishes and counties for this project include: (Louisiana) Caddo, Bossier, Webster, De Soto, Red River, Bienville, Lincoln, Winn, Natchitoches, La Salle, Grant, Rapides, Avoyelles, Concordia; and (Arkansas) Hempstead, Miller, Nevada, Lafayette, and Columbia.

DESCRIPTION: The project provides for a 9- by 200-foot navigation channel extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, Louisiana. Five locks with dimensions of 84 by 705 by 14 feet and adjacent dams provide a lift of 141 feet. The project also provides for realigning the channel by means of dredging, cutoffs, and training works and for stabilizing its banks by means of revetments, dikes, and other methods. Recreation facilities and fish and wildlife development are also an integral parts of the project. The major unprogrammed work includes channel stabilization work, recreation sites, and continued acquisition of mitigation lands. This project is part of the J. Bennett Johnston Waterway, Louisiana, Texas, Arkansas, and Oklahoma, which also includes the Shreveport, to Daingerfield, Texas (navigation), Shreveport, Louisiana, to Index, Arkansas (bank stabilization), and Index, Arkansas, to Denison Dam (bank stabilization) reaches.

AUTHORIZATION: River and Harbor Act of 1968, Water Resources Development Act of 1976, Supplemental Appropriations Act of 1984, Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 2000, and 2007.

REMAINING BENEFIT - REMAINING COST RATIO: 1.6 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 0.6 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 3-1/4 percent (FY 1973).

BASIS OF BENEFIT-COST RATIO: Benefits are from the General Reevaluation Report and Final Supplement No. 2 to the Environmental Impact Statement, at 1982 price levels, approved 4 January 1984. Costs for current analysis are based on October 2005 costs deflated to October 1982 price levels.

SUMMARIZED FINANCIAL DATA			
Estimated Federal Cost (COE)			$1,956,546,000
Programmed Construction		$ 1,956,546,000	
Unprogrammed Construction		0	
Estimated Appn Requirements (U.S. Coast Guard)			754,000
Programmed Construction		754,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			113,000,000
Programmed Construction		66,145,000	
Cash Contributions	$ 9,248,000		
Other Costs	56,897,000		
Unprogrammed Construction		46,855,000	
Cash Contributions	24,217,000		
Other Costs	22,638,000		

STATUS (January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	93	TBD
Open to 9-Foot Navigation		Dec 87
Lindy Boggs Lock & Dam		Dec 87
John H. Overton Lock and Dam		Dec 87
Lock and Dam No. 3		Dec 91 [1]
Russell B. Long Lock and Dam		Dec 94
Joe D. Waggonner, Jr., Lock and Dam		Dec 94

PHYSICAL DATA

Lands and Damages: 26,000 acres, authorized mitigation

Channels and Canals: Channel 9 feet deep, 200 feet wide, and 236 miles long from Old River to Shreveport, Louisiana. Total length of bank protection - 273 miles

Locks: Number - 5; Size - 84 by 705 feet
Dams: Number - 5; Type - Tainter Gated
Relocations: Roads (Modify one bridge)
Railroads (Replace one and modify one bridge)

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[1] Initial interim pool impounded.

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Total Estimated Programmed Construction Cost	$ 2,023,445,000	
Total Estimated Unprogrammed Construction Cost	46,855,000	
Total Estimated Project Cost	2,070,300,000 [1]	
Allocations to 30 September 2007	$ 1,803,972,000	
Allocations for FY 2008	6,888,000	
Allocations for FY 2009	7,623,000	
Recovery Act Allocations to Date	0	
Conference Allowance for FY 2010	6,613,000	
Allocation for FY 2010	6,613,000	
Allocations through FY 2010	1,825,096,000 [1]	90
Allocation Requested for FY 2011	1,500,000	90
Programmed Balance to Complete After FY 2011	129,950,000	
Unprogrammed Balance to Complete After FY 2011	46,855,000	

[1] Includes $26,654,000 for John H. Overton Lock and Dam and $21,653,000 for Red River Emergency Bank Protection for construction work.

JUSTIFICATION: The Red River was a very erratic river, subject to wide fluctuations in stage and meandering because of the erodible soils. A system of dependable pools was constructed to enable navigation while work continues on channel alignment. The pools are provided by five locks and dams and the proper alignment is provided by bank and channel stabilization works. These works improve water quality, fish and wildlife habitat, and preserve lands. On 31 December 1994, a 9-foot-deep by 200-foot-wide navigation channel was opened from the Mississippi River to Shreveport. The channel provides dependable 9-foot commercial navigation depths year-round.

Navigation from the Mississippi River to Shreveport provides an artery for low-cost transportation which is an integral part of economic growth of the region. Estimated savings are based on an annual movement, as forecast, of 7,845,000 tons. Waterborne commerce tonnage on the waterway in 2007 was 9,092,000 tons including all commodities that transited any portion of the system. Commodities carried over the waterway include iron and steel products and pipe, industrial chemicals, paper and allied paper products, petroleum and petroleum products, other metals and ores, sulphur, agricultural chemicals, and grain. The public will realize an average annual savings of $64,092,000 which will result from reduced transportation costs. Several local entities are actively involved in port development on the waterway. The City of Alexandria has constructed port facilities in Pool 2 for use by industry. The Natchitoches Parish Port in Pool 3 was opened in 1996, and a chip loading facility, general cargo dock and transit shed have been constructed at the port. The Caddo-Bossier Port in Pool 5 was opened in April 1997 and shipped 244,000 tons in 2005. Commodity movement through the port is steadily increasing. The Red River Parish Port was opened in 2002 in Pool 4. These ports will be able to accommodate tows or barges of various sizes. A power plant currently under construction in Pool 2 is projected to receive by barge an estimated 2 million tons of pertroleum coke when completed. The usable lock dimensions were designed for a configuration of six barges with individual dimensions of 35 by 195 feet and a towboat. Larger grain and petroleum barges can also call at the ports. The project is credited with benefits derived from transportation savings from use of the waterway, flood control, damages prevented by bank stabilization, security against levee crevasses, fish and wildlife, recreation, area redevelopment, reduced maintenance on existing revetments, reduced sedimentation, irrigation, reduced costs of municipal and industrial water supply, and reduced pumping costs.

The average annual benefits are as follows:

Annual Benefits	Amount
Navigation	$ 68,831,000
Flood Control	2,037,000
Bank Stabilization	16,602,000
Fish and Wildlife	460,000
Recreation	4,435,000
Area Redevelopment	14,808,000
Other:	
Irrigation and reduced costs of municipal and industrial water supply	53,000
Total	$ 107,226,000

FISCAL YEAR 2010: Current year funds are being used as follows:

Po	ols 1-5	
Socot	Revetment	5,600,000
Contin	ue Mitigation	163,000
E&D		600,000
S&A		250,000
TOTAL		$6,613,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Pools	1-5	
	Continue Mitigation	1,500,000
TOTAL		$1,500,000

NON-FEDERAL COST: With the exception of the Louisiana-Arkansas Railroad Bridge Relocation and the mitigation element, local interests are required to provide all lands, easements, and rights-of-way, including a proportionate share of the cost of the bridge relocations over existing channels in accordance with the principles of Section 6 of the Bridge Alteration Act (Truman-Hobbs) of 21 June 1940, as amended by the Act of 16 July 1952, 25 percent of the cost of necessary retaining dikes for dredged materials and 50 percent of the total cost of recreation facilities. The non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas	$ 45,802,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project	10,198,000	$ 211,700
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities	54,168,000	1,448,000
Pay 6 percent of the first costs allocated to fish and wildlife and pay 6 percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities	827,000 [1]	332,800 [2]
Pay 25 percent of the first cost allocated to retention dikes required for construction and maintenance dredging	2,005,000	31,200
Replacement costs		302,900
Total Non-Federal Costs	$ 113,000,000	$ 2,326,600

[1] Since the local sponsor will assume all operation and maintenance costs and this cost will exceed the 6 percent local share, there will be no local requirement toward implementation costs for Loggy Bayou increment. Implementation costs shown are for the Bayou Bodcau increment.

[2] 100 percent of annual management costs for Loggy Bayou and Bayou Bodcau increments.

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction. Non-Federal cost associated with the scheduled portion of the project are broken down as follows:

Lands and Damages	$ 45,802,000
Utility Relocations	9,192,000
Recreation (Other)	24,541,000
Cash Contribution	33,465,000
Recreation Facilities	(29,778,000)
Bridge Relocations	(1,006,000)
Retaining Dikes	(1,829,000)
Mitigation	(852,000)
Total	$113,000,000

STATUS OF LOCAL COOPERATION: Formal assurances of local cooperation were furnished by the Red River Waterway Commission on 26 February 1969 and accepted on behalf of the United States on 15 April 1969. That agency was formed expressly to provide the local cooperation required for the project and has levied a 2-mill assessment to fulfill its obligations. Amended assurances covering the provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, and the specific written agreement requirements of Section 221 of the Flood Control Act of 1970, Public Law 91-611, were executed by the Red River Waterway Commission on 23 May 1973 and were accepted on behalf of the United States on 14 November 1973. A cost sharing agreement covering nine recreation sites in Pools 1 and 2 was approved by the Deputy Chief of Engineers on 23 July 1985. A Memorandum of Understanding between the Corps and the local sponsor for development of these nine sites was executed in January 1986. A supplement to this cost-sharing agreement was executed in the last quarter of FY 1994 to cover the construction of three boat ramps and ancillary facilities in Pools 4 and 5 in FY 1995. In the Conference Report that accompanied the Energy and Water Development Appropriations Act of 1993, Congress directed the Corps of Engineers to prepare a supplement to the recreation master plan to serve as the project document to support the contract for recreation development in Pools 3 to 5. The Project Cooperation Agreement for recreation developments in Pools 3 to 5 was executed in April 2000.

The Red River Waterway Commission agreed by letter dated 6 September 1983 to fulfill all responsibilities of the local sponsor relative to the purchase of wildlife mitigation lands. The Louisiana Department of Wildlife and Fisheries, by letter dated 22 July 1983, agreed to assume operation and maintenance responsibilities for acquired wildlife mitigation lands. Updated letters of agreement covering the mitigation plan as presently conceived (i.e., acquisition of up to 5,000 acres in the vicinity of Loggy Bayou) were furnished by the Red River Waterway Commission and the Louisiana Department of Wildlife and Fisheries on 13 August 1990 and 17 August 1990, respectively. The Local Cooperation Agreement between the Federal Government and the State of Louisiana for the acquisition of up to 5,000 acres of mitigation lands in the vicinity of Stumpy Lake/Swan Lake/Loggy Bayou Wildlife Management Area was executed by the Red River Waterway Commission in May 1993 and by the Assistant Secretary of the Army in June 1993.

The Project Cooperation Agreement covering the acquisition of mitigation lands in the vicinity of the Bayou Bodcau Wildlife Management Area was executed in June 1996.

The Red River Waterway Commission furnished a letter of agreement dated 10 October 1997 supporting additional mitigation lands in Red River and Caddo Parishes that are to be considered adjacent to the Loggy Bayou Wildlife Management Area. These new areas were directed in the Water Resources Development Act of 1996. A report detailing a plan of action to acquire these lands was processed as directed by the legislation. Amendment No. 1 to the June 1993 Loggy Bayou Area Local Cooperation Agreement covering the initial acquisition effort in Caddo Parish was executed by the Red River Waterway Commission and the Assistant Secretary of the Army in October 1999. The Water Resource Development Act of 2000 authorized the acquisition of mitigation lands in any of the parishes that comprise the Red River Waterway District, consisting of Avoyelles, Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River Parishes. The WRDA Act of 2007 increased the authorization to $33,912,000. This authorized the purchase and reforestation of cleared lands in addition to forested lands and allowed incorporation of wildlife and forestry management practices to improve species diversity on mitigation lands. Amendment No. 2 to the June 1993 Loggy Bayou Area Local Cooperation Agreement incorporating the Water Resources Development Act of 2007 authorization is currently under development.

The Red River Waterway Commission is providing its share of the project first costs by furnishing the necessary lands, easements, and rights-of-way, performing utility relocations as needed, and providing cash contributions for recreation facilities, bridge relocations, and retaining dikes. They will contribute their share of retention dike construction for maintenance dredging by cash contribution and they will provide the lands, easements, and rights-of-way for these dikes.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate (Corps of Engineers) of $1,957,300,000 is a decrease of $3,000,000 from the latest estimate ($1,960,300,000) presented to Congress (FY 2010). This change includes the following item.

Item	Amount
Price Escalation on Construction Features	$3,163,000
Post Contract Award and other Estimating Adjustments	-$6,163,000
Total	$3,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final statement was filed with the Council on Environmental Quality on 11 May 1973. The Environmental Impact Statement is included in the project "Red River Waterway." Supplement No. 1 to the Environmental Impact Statement was prepared for the Mississippi River to Shreveport reach of the J. Bennett Johnston Waterway due to a change in project alignment from the authorizing document, and to include updated environmental information due to a reanalysis and to include results of the ground-water studies. The final Supplement No. 1 was filed with the Council on Environmental Quality on 18 February 1977, and published in the Federal Register on 25 February 1977. A third Environmental Impact Statement (Supplement No. 2) was submitted to the Environmental Protection Agency in final form on 10 November 1983, and the record of decision was signed by the Division Engineer on 4 January 1984.

An Environmental Assessment was prepared for Pool No. 2 to present the results of investigations of the impacts of the 58- and 64-foot elevations. The Environmental Assessment resulted in a Finding of No Significant Impact which allowed a design change from 58- to 64-foot pool elevations. Following review by the public, the Finding of No Significant Impact was signed on 21 April 1982.

An Environmental Assessment of the Loggy Bayou Area mitigation increment has been performed. This area was not included in the original mitigation report. The Environmental Assessment was required to satisfy the National Environmental Policy Act. The Environmental Assessment resulted in a Finding of No Significant Impact, which was signed 11 January 1993. Environmental Assessments are required to present the impacts associated with the construction of riverside levee protection berms in Pools 3 and 5. The berms are necessary to ensure the integrity of the existing flood control levee system. The Environmental

Assessment for the berms in Pool 3 resulted in a Finding of No Significant Impact which was signed on 16 July 1992. The Environmental Assessment for the berms in Pool 5 also resulted in a Finding of No Significant Impact which was signed on 24 May 1993.

Environmental Assessments were required for the Bayou Bodcau mitigation increment and the Nantachie Lake drawdown structure to satisfy National Environmental Policy Act requirements. The Bayou Bodcau mitigation Environmental Assessment resulted in a Finding of No Significant Impact that was signed on 28 April 1995, and the Nantachie Lake drawdown structure Environmental Assessment was completed in FY 1996, also resulting in a Finding of No Significant Impact. An Environmental Assessment for the mitigation lands to be acquired in Caddo and Red River Parishes will be performed. An assessment of the initial tract in Caddo Parish has been completed, and resulted in a Finding of No Significant Impact that was signed on 23 September 1999.

A Final Environmental Assessment has been prepared covering instream disposal of maintenance dredge material in Pools 3, 4, and 5 in lieu of disposal in contained upland areas. A Finding of No Significant Impact was signed on 19 March 1996.

A Final Environmental Assessment has been prepared covering maintenance dredging of the oxbow lakes designated for preservation in project documentation. The dredging consists of maintaining a 5-foot-deep by 20-foot-wide connection from the river into the oxbow lakes in order to achieve all project benefits. The dredged material will be disposed of instream. A Finding of No Significant Impact was signed 18 November 1997.

An Environmental Assessment and Finding of No Significant Impact are included in Supplement No. 2 to the Recreation Master Plan which presents the revised plan for recreation development in Pools 3, 4, and 5. Supplement No. 2 was approved by the Mississippi River Commission on 1 May 1998. The Finding of No Significant Impact was signed on 6 October 1997. An Environmental Assessment was performed in Fiscal Year 2000 for the Hampton's Lake Recreation Area that was added to the Pools 3 to 5 Master Plan by August 1999, Supplement No. 3. A Finding of No Significant Impact was signed on 24 May 2000.

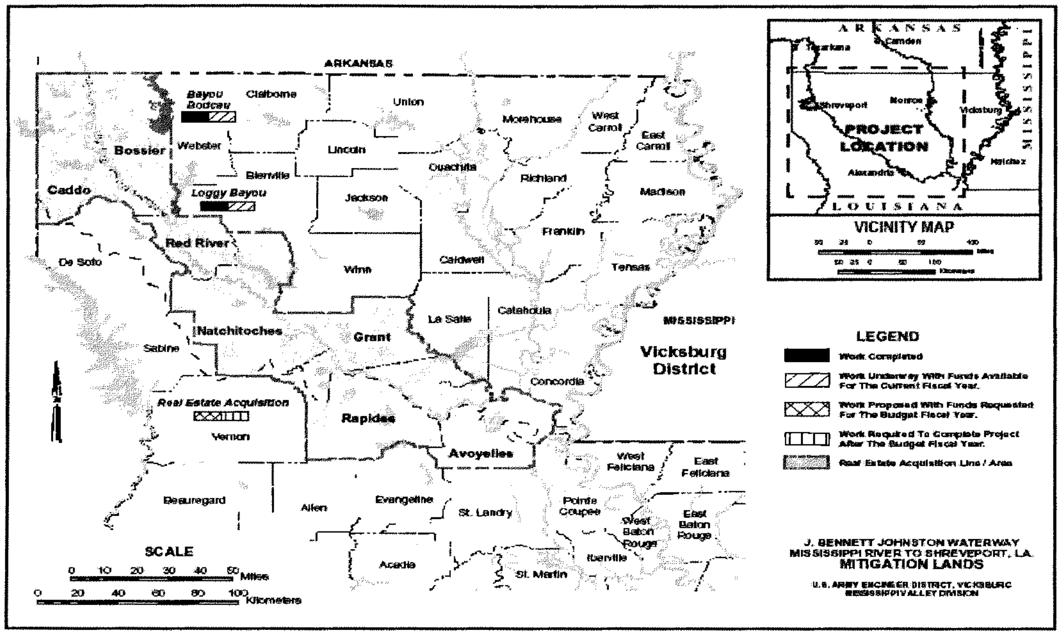
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1971 and allotted in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1973.

The Energy and Water Development Appropriations Act of 1996 authorized a Regional Visitors Center in the vicinity of Shreveport. The Energy and Water Development Appropriations Act of 1997 provided $3,000,000 and directions to initiate design and construction of the Regional Visitors Center in Fiscal Year 1997. The 1997 Appropriations Act also provided funds to initiate design of the previously authorized Project Visitors Center at Grand Ecore. The Fiscal Year 2001 Appropriations Act (P.L. 106-377) directed the use of available Construction funds, in addition to the funds provided by the Fiscal Year 1997 Appropriations Act, to complete design and construction of the Regional Visitor Center at an estimated cost of $6,000,000. Construction of the Project Visitors Center at Grand Ecore was completed in Fiscal Year 2003 and the Regional Visitors Center at Shreveport was completed in the 1st quarter of Fiscal Year 2006.

The Master Plan Supplement No. 3 covering adjustments to cost-shared recreation facilities in Pools 3, 4, and 5 was approved by the District Commander in September 1999. The Project Cooperation Agreement covering the same recreation facilities presented in Supplement Nos. 2 and 3 was executed in April 2000. Recreation Master Plan Supplement No. 4 covering minor transfers of facilities between approved sites, with no net change in quantity of facilities, was approved by the District Commander in April 2003.

The Water Resources Development Act of 1996 increased the total cost of the Loggy Bayou mitigation increment to $10,500,000. It further provided that lands that are purchased adjacent to the Loggy Bayou Wildlife Management Area may be located in Caddo Parish or Red River Parish. The Water Resources Development Act of 1996 also modified the waterway project to require the Secretary to dredge or perform other related work as required to reestablish and maintain access to, and the environmental value of, the bendway channels designated for preservation in previous project documentation. Further, this work shall be carried out in accordance with the local cooperation requirements for other navigation features of the project. These project modifications are subject to completion of reports showing the work is technically sound and environmentally and economically acceptable, as applicable. The favorable bendway channel (oxbow lakes) dredging report has been returned by OMB for the development of supplemental environmental data and resubmission, and was resubmitted in late Fiscal Year 2001.

The Water Resources Development Act of 1986, as modified by the Water Resources Development Acts of 1988, 1990 and 2000, and the Fiscal Year 1990 and Fiscal Year 1994 Energy and Water Development Appropriations Acts, authorized the wildlife mitigation project for the waterway above mile 104 to Shreveport, Louisiana, at a total cost of $9,420,000. The Water Resources Development Act of 1990 modifies the mitigation project by authorizing the Secretary of the Army to acquire an additional 12,000 acres adjacent to or close to the Bayou Bodcau Wildlife Management Area. The real estate design memorandums, which present the real estate requirements for the Loggy Bayou area and Bayou Bodcau area mitigation lands, have been approved. A supplemental report, which was submitted prior to passage of the Fiscal Year 1990 Energy and Water Development Appropriations Act and the Water Resources Development Act of 1990, recommends the acquisition of only 300 acres in the Stumpy Lake area and no lands in the vicinity of the Bayou Bodcau Wildlife Management Area. In the Energy and Water Development Appropriations Act of 1994, the Corps was directed to reimburse the project local sponsor annually for the Federal share of management costs for the Bayou Bodcau mitigation area. The Water Resources Development Act of 2000 modifies the mitigation project by authorizing the purchase of mitigation land from willing sellers in any of the parishes that comprise the Red River Waterway District, consisting of Avoyelles, Bossier, Caddo, Grant, Natchitoches, Rapides, and Red River Parishes. The Water Resources Development Act of 2007 increased the authorization to $33,912,000. This authorized the purchase and reforestation of cleared lands in addition to forested lands and allowed incorporation of wildlife and forestry management practices to improve species diversity on mitigation lands.


ARKANSAS
Caddo
Bossier
Bayou Bodcau
Claiborne
Webster
Bienville
Loggy Bayou
Union
Lincoln
Jackson
Ouachita
Morehouse
West Carroll
East Carroll
Richland
Madison
Franklin
Tensas
Caldwell
Winn
Red River
De Soto
Natchitoches
Sabine
Grant
La Salle
Catahoula
MISSISSIPPI
Vicksburg District
Concordia
Real Estate Acquisition
Vernon
Rapides
Avoyelles
West Feliciana
East Feliciana
Beauregard
Allen
Evangeline
St. Landry
Pointe Coupee
West Baton Rouge
East Baton Rouge
Iberville
Acadia
St. Martin
SCALE
0 10 20 30 40 50 Miles
0 20 40 60 80 100 Kilometers
ARKANSAS
Texarkana
Camden
Shreveport
Monroe
Vicksburg
PROJECT LOCATION
Alexandria
Natchez
LOUISIANA
MISSISSIPPI
VICINITY MAP
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
Real Estate Acquisition Line / Area
J. BENNETT JOHNSTON WATERWAY
MISSISSIPPI RIVER TO SHREVEPORT, LA.
MITIGATION LANDS
U.S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction – Replacement – Locks and Dams (Navigation)

PROJECT: Locks No. 27, Mississippi River, Illinois (Replacement) (Continuing)

LOCATION: Locks 27 is located in Madison County, Illinois, on the Chain of Rocks Canal at approximately Mile 185.1 above the mouth of the Ohio River in Granite City, Illinois.

DESCRIPTION: The project plan provides for the rehabilitation of portions of the structure. The work will include replacement of the main lock lift gate downstream leaf, culvert valves for both locks, the lock bulkheads lifting beam, lock lighting, culvert valve machinery for both locks, the main lock miter gate, the downstream bulkhead sill stability anchorages in both locks, and the upstream protection cell; restoration of lockwall stability using drilled tiedowns; and improvements to river training structures at the canal lower entrance. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1945, Water Resources Development Acts of 1986 and 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 6.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.47 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 3.77 to 1 at 6.375 percent (FY 2004, Rehabilitation Report, Mar 2002).

BASIS OF BENEFIT-COST RATIO: Based on Major Rehabilitation Report, Locks No. 27, Mississippi River, March 2002, approved 19 August 2002.

SUMMARIZED FINANCIAL DATA		STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$37,373,000	Entire Project	19	9/30/2012
General Appropriation	$18,686,500			
Inland Waterways Trust Fund	18,686,500			
Estimated Non-Federal Cost	0			
Total Estimated Project Cost	$37,373,000[1]			

SUMMARIZED FINANCIAL DATA (Continued)	GENERAL APPNS	INLAND WATERWAYS TRUST FUND	ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	$0	$0	
Allocation for FY 2008	3,418,500	3,418,500	
Allocation for FY 2009	2,486,000	0	
Recovery Act Allocations to Date	10,985,300	0	
Conference Allowance for FY 2010	0	0	
Allocation for FY 2010	0	0	
Allocations through FY 2010	16,889,800	3,418,500	54%
Allocation Requested for FY 2011	0	350,000	55%
Programmed Balance to Complete After FY 2011	TBD	TBD	
Unprogrammed Balance to Complete After FY 2011	0	0	

[1/] In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund (IWTF) when use of the IWTF is authorized for the project. On 1 May 2009, the Assistant Secretary of the Army for Civil Works authorized the use of ARRA funds, with no matching IWTF funds.

PHYSICAL DATA

Lock Rehabilitation – 110 feet wide x 1,200 feet long Main Lock
– 110 feet wide x 600 feet long Auxiliary Lock

JUSTIFICATION: Locks 27 has been operating for over 50 years. While ordinary maintenance has been performed to keep the facility operating, the wear and tear on some items is beyond ordinary maintenance. To provide an acceptable level of reliability, major rehabilitation of various structural, electrical, and mechanical components of the facility must be undertaken. Locks 27 opens the doors to navigation and commerce on the Mississippi, Illinois, and Missouri Rivers. These locks are the first (for upbound tows) and the last (for downbound tows) in a series of 37 locks that define commercial navigation in the Midwest. Continued operation of this critical lock structure is in jeopardy. Valves are showing increased signs of deterioration and the lockwalls need to be stabilized to allow maintenance/emergency repairs at higher water levels. Annually Locks 27 has about 10,000 lockages resulting in about 70 million tons of products (grain, coal, chemicals and fertilizers, iron and steel products, petroleum) contained in over 75,000 barges. When Locks 27 is closed due to equipment failures, shipping stops or is severely curtailed adding increased costs to the delivery of the products in transit. The average annual benefits (all navigation) are $10,563,000.

FISCAL YEAR 2010: Available funds are being used as follows:

Install Culvert Value Machinery	$ 2,000,000
Complete Design and Construction of Lock Wall Tie-downs	11,000,000
Complete Design and Fabrication of Main Lock Miter Gate	7,200,000
Complete Design and Construction of Upstream Protection Cell	2,500,000
Install Main Lock Lift Gate	1,500,000
Install Main Lock Miter Gate	1,500,000
Total	$ 25,700,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Completion of As-Built Drawings and O&M Manual	$250,000
Construction Management	100,000
Total	$350,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, 50 percent of the total cost of construction will be derived from the Inland Waterways Trust Fund.

STATUS OF LOCAL COOPERATION: None required.

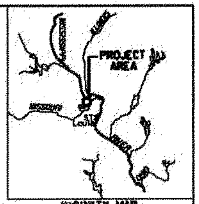
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate is $37,373,000. This is the initial estimate being presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The environmental assessment resulted in a Finding of No Significant Impact, which was signed 28 February 2002. The rehabilitation reports were coordinated with the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and the Missouri and Illinois Departments of Conservation. The U.S. Fish and Wildlife Service concurred with the biological assessments contained in the environmental assessment.

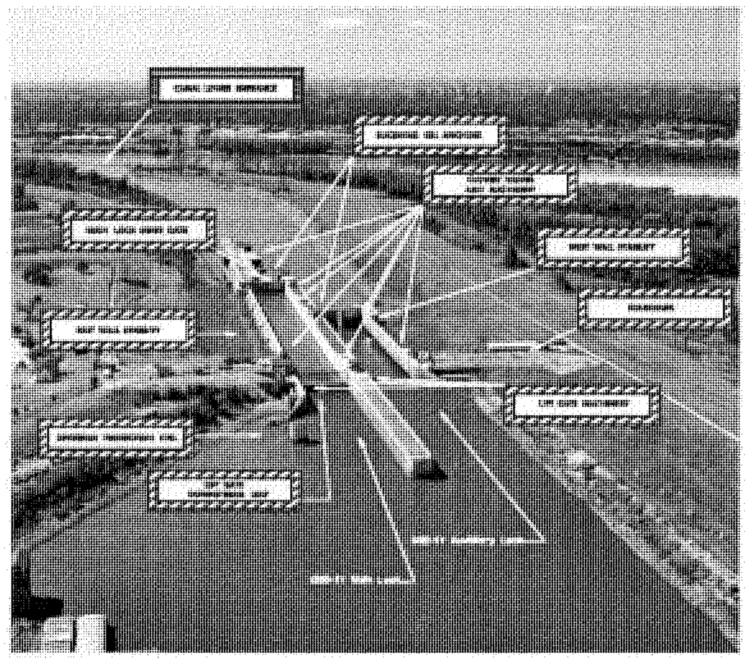
The project requires no mitigation.

OTHER INFORMATION: Funds to initiate construction were appropriated under Construction in Fiscal Year 2008.

Over $10,400,000 worth of major rehabilitation features have been constructed using Operation and Maintenance and Construction funds, with no match by the Inland Waterways Trust Fund.



VICINITY MAP



Aerial View of Lock No. 27
(Looking Downstream)

L E G E N D

- ■ WORK COMPLETED.
- ▨ WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
- ▩ WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
- ▤ WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.

LOCK NO. 27
MISSISSIPPI RIVER, ILLINOIS
(MAJOR REHABILITATION)
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION

APPROPRIATION TITLE: Construction – Channels and Harbors (Navigation)

PROJECT: Mississippi River Between the Ohio and Missouri Rivers (Regulating Works), Missouri and Illinois (Continuing)

LOCATION: The project involves improvement of the Mississippi River from the mouth of the Ohio River to the mouth of the Missouri River at river mile 195 above the mouth of the Ohio River. The project covers the following counties: (Missouri) St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi; (Illinois) Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, and Pulaski.

DESCRIPTION: The project consists of a navigation channel 9 feet deep and not less than 300 feet wide with additional width in bends, from the mouth of the Ohio River to the mouth of the Missouri River, a distance of approximately 195 miles. Project improvements are achieved by means of dikes, revetment, construction dredging, and rock removal. All work is programmed.

AUTHORIZATION: River and Harbor Acts of 1910, 1927, and 1930.

REMAINING BENEFIT-REMAINING COST RATIO: 8.9 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 5.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 7.2 to 1 at 2.5 percent (FY 1961).

BASIS OF BENEFIT-COST RATIO: Benefits are based on the Upper Mississippi River Master Plan Report of 1982 at 1986 price levels.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Estimated Federal Cost	$350,000,000	
Estimated Non-Federal Cost	0	
Cash Contributions	0	
Other Cost	0	
Total Estimated Project Cost	$350,000,000	
Allocations to 30 September 2007	$219,291,000	
Allocation for FY 2008	1,966,000	
Allocation for FY 2009	4,795,000	
Recovery Act Allocations to Date	17,950,000	
Conference Allowance for FY 2010	580,000	
Allocation for FY 2010	548,000	
Allocations to 30 September 2010	244,550,000	70
Allocation Requested for FY 2011	4,345,000	71
Programmed Balance to Complete After FY 2011	101,105,000	
Unprogrammed Balance to Complete After FY 2011	0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	80	TBD

PHYSICAL DATA

195 miles of navigation channel
Ohio River to mouth of Missouri River
9 feet deep x 300 feet wide

JUSTIFICATION: The Mississippi River between the Ohio and Missouri Rivers is a major artery of the inland waterway system. Commerce in this reach has increased from 4,500,000 tons in 1945 to 109,832,639 tons in 2007 worth approximately $15 billion. Commerce is expected to increase to 167,000,000 tons by the year 2020; therefore, it is essential that construction of project works be continued at a rate which will insure 9-foot channel depths for a year-round navigation season. The average annual benefits, all navigation, are $261,809,000.

FISCAL YEAR 20109: Current year funds will be used as follows:

Planning, Engineering, and Design	498,000
Construction Management	50,000
Total	$548,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete Red Rock Phase 5 Dike and Revetment Contract	$1,875,000
Complete Eliza Point/Greenfield Bend Phase 2 Dike and Revetment Contract	1,000,000
Complete Devil's Island Phase 4 Dike and Revetment Contract	600,000
Continue bankline stabilization through tree planting at Thompson Bend Riparian Corridor	70,000
Planning, Engineering, and Design	650,000
Construction Management	150,000
Total	$4,345,000

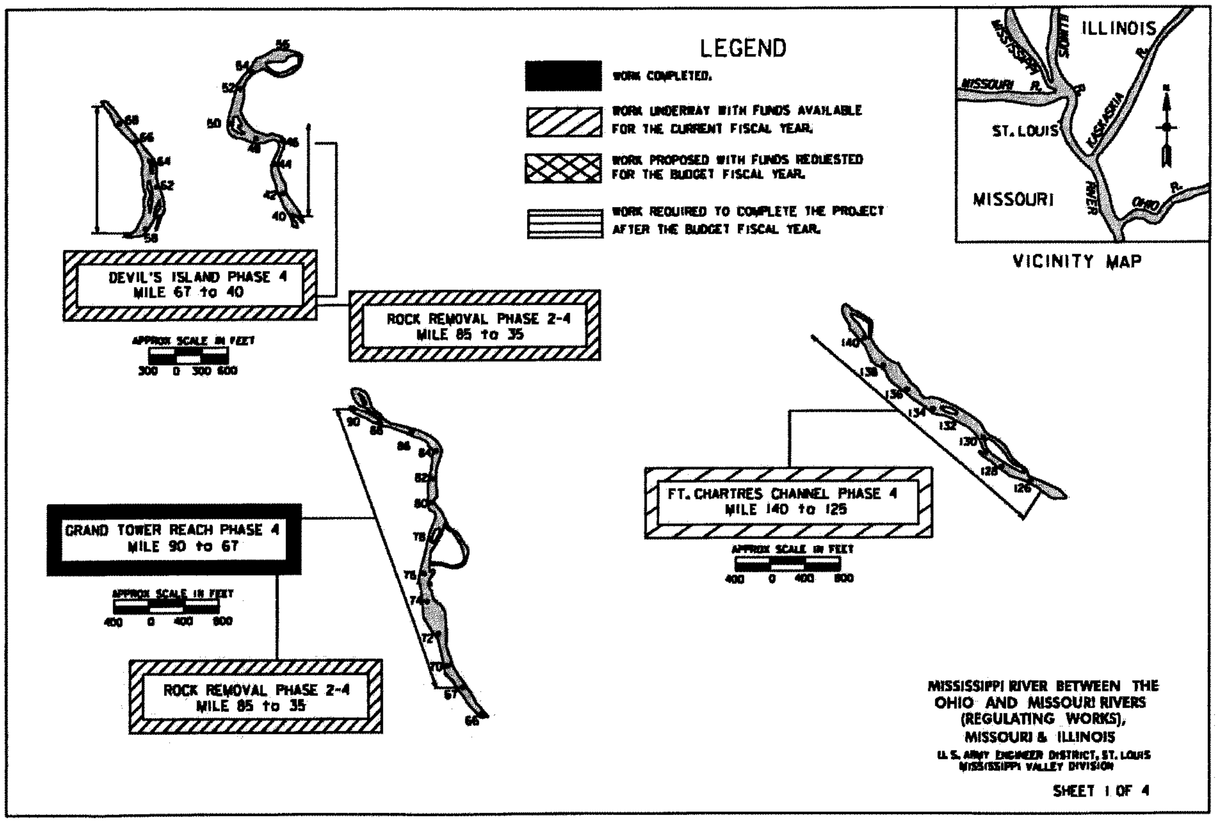
NON-FEDERAL COST: None.

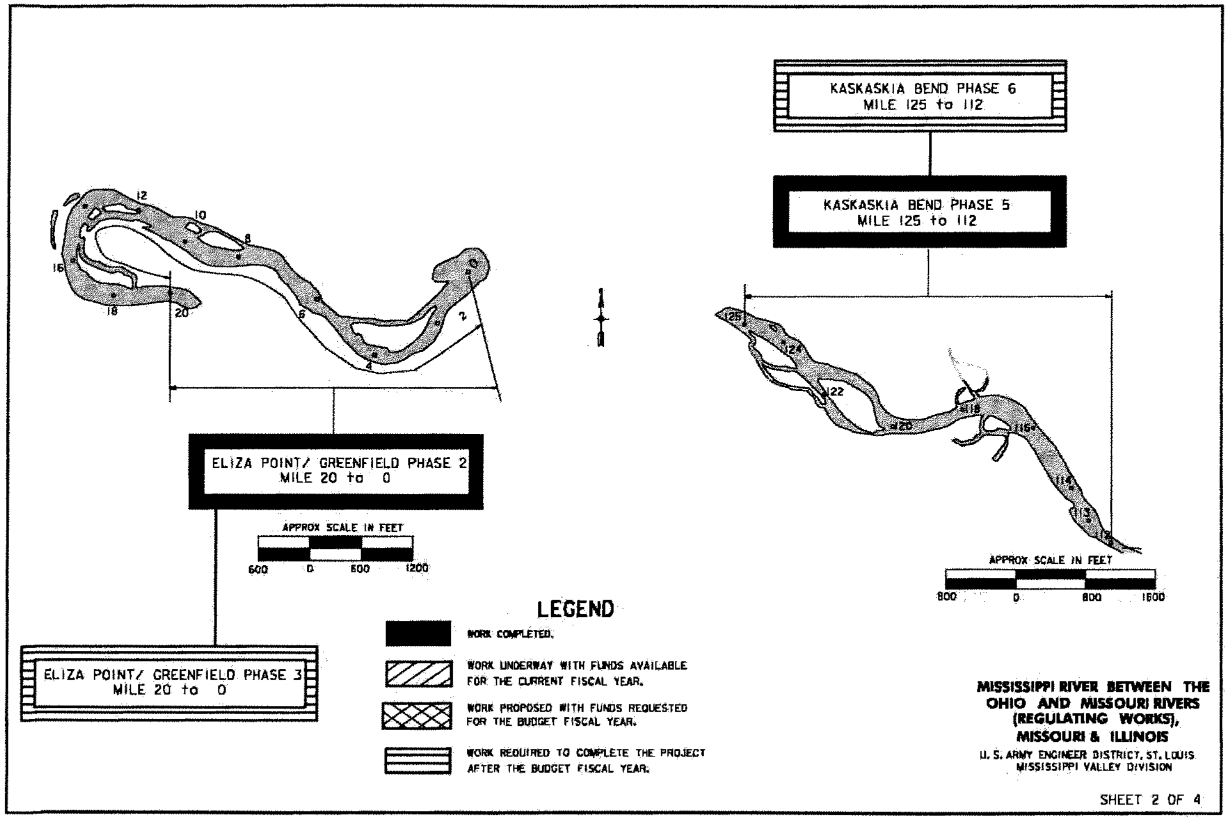
STATUS OF LOCAL COOPERATION: Not applicable.

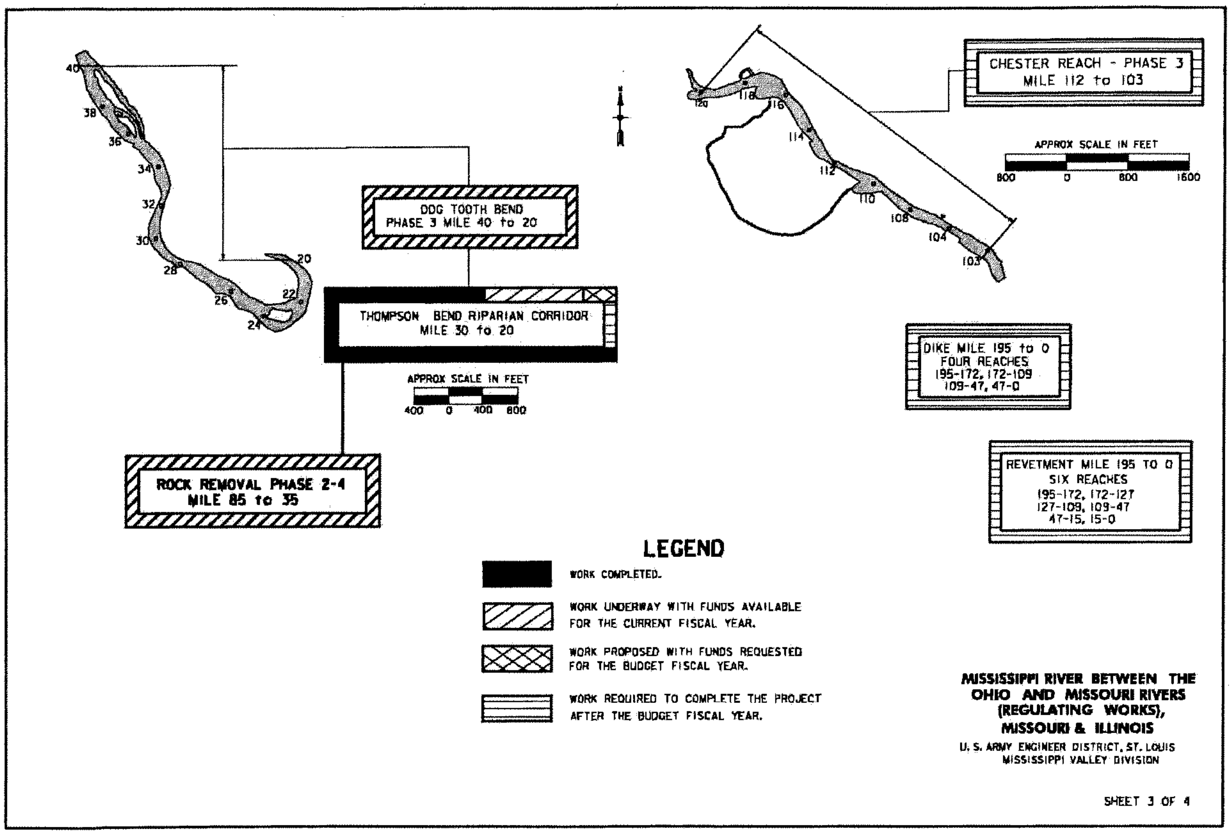
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $350,000,000 is the same as that last presented to Congress (FY 2010).

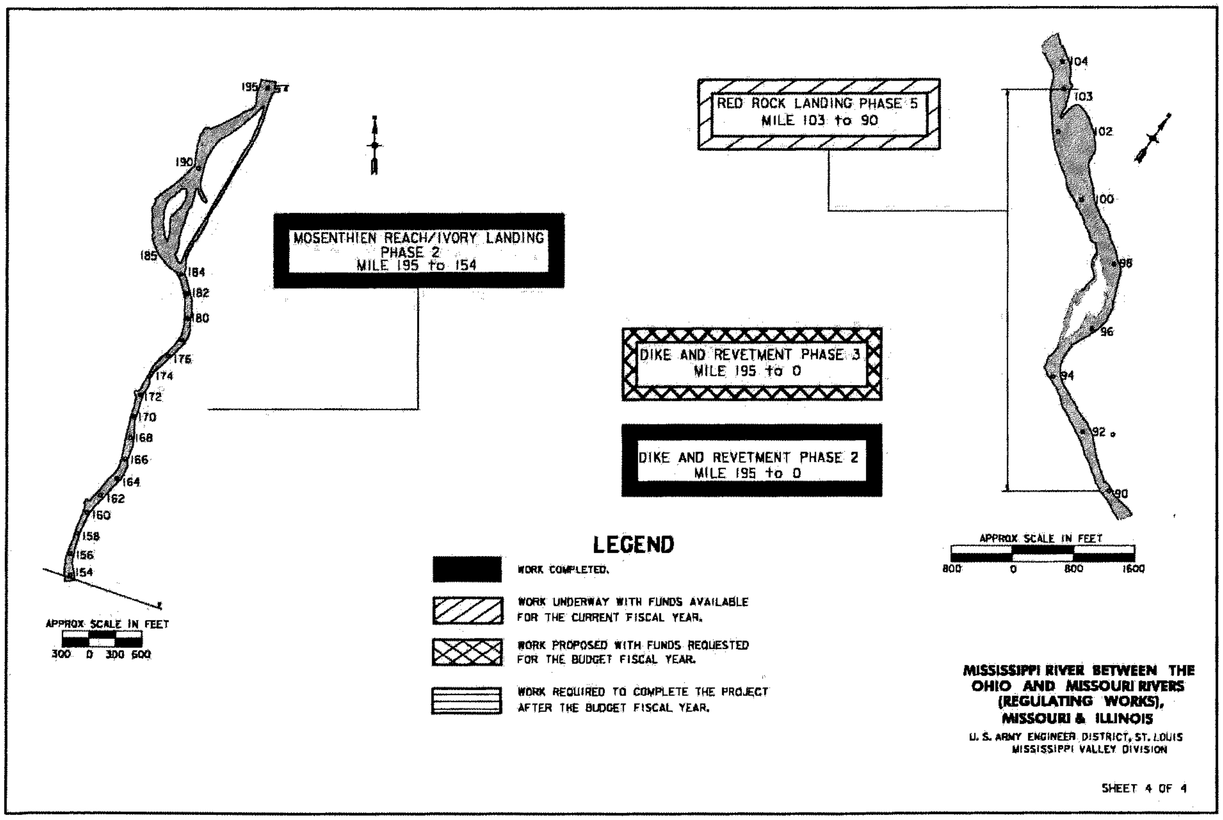
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 8 April 1976 and published in the Federal Register on 23 April 1976. An Environmental Analysis was completed for the Rock Removal and Finding of No Significant Impact signed on 28 October 1988.

OTHER INFORMATION: Planning was initiated prior to 1910, and construction was initiated in 1910. This project requires no mitigation.


LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
ILLINOIS
MISSISSIPPI
ILLINOIS
MISSOURI R.
ST. LOUIS
KASKASKIA
MISSOURI
RIVER
OHIO R.
VICINITY MAP
DEVIL'S ISLAND PHASE 4 MILE 67 to 40
APPROX SCALE IN FEET
300 0 300 600
ROCK REMOVAL PHASE 2-4 MILE 85 to 35
GRAND TOWER REACH PHASE 4 MILE 90 to 67
APPROX SCALE IN FEET
400 0 400 800
ROCK REMOVAL PHASE 2-4 MILE 85 to 35
FT. CHARTRES CHANNEL PHASE 4 MILE 140 to 125
APPROX SCALE IN FEET
400 0 400 800
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 1 OF 4


KASKASKIA BEND PHASE 6
MILE 125 to 112
KASKASKIA BEND PHASE 5
MILE 125 to 112
125
124
122
120
118
116
114
113
112
APPROX SCALE IN FEET
800
0
800
1600
ELIZA POINT/ GREENFIELD PHASE 2
MILE 20 to 0
ELIZA POINT/ GREENFIELD PHASE 3
MILE 20 to 0
0
2
4
6
8
10
12
16
18
20
APPROX SCALE IN FEET
600
0
600
1200
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 2 OF 4


40
38
36
34
32
30
28
26
24
22
20
DOG TOOTH BEND
PHASE 3 MILE 40 to 20
THOMPSON BEND RIPARIAN CORRIDOR
MILE 30 to 20
APPROX SCALE IN FEET
400 0 400 800
ROCK REMOVAL PHASE 2-4
MILE 85 to 35
120
118
116
114
112
110
108
104
103
CHESTER REACH - PHASE 3
MILE 112 to 103
APPROX SCALE IN FEET
800 0 800 1600
DIKE MILE 195 to 0
FOUR REACHES
195-172, 172-109
109-47, 47-0
REVETMENT MILE 195 TO 0
SIX REACHES
195-172, 172-127
127-109, 109-47
47-15, 15-0
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 3 OF 4


195
190
185
184
182
180
176
174
172
170
168
166
164
162
160
158
156
154
APPROX SCALE IN FEET
300 0 300 600
MOSENTHIEN REACH/IVORY LANDING PHASE 2 MILE 195 to 154
RED ROCK LANDING PHASE 5 MILE 103 to 90
DIKE AND REVETMENT PHASE 3 MILE 195 to 0
DIKE AND REVETMENT PHASE 2 MILE 195 to 0
LEGEND
WORK COMPLETED.
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR.
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR.
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR.
104
103
102
100
98
96
94
92
90
APPROX SCALE IN FEET
800 0 800 1600
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REGULATING WORKS), MISSOURI & ILLINOIS
U. S. ARMY ENGINEER DISTRICT, ST. LOUIS
MISSISSIPPI VALLEY DIVISION
SHEET 4 OF 4

ENVIRONMENT

INVESTIGATIONS

Study	Total Estimated Federal Cost $	Allocation Prior To FY 2008 $	Allocation for FY 2008 $	Allocation for FY 2009 $	Allocation for FY 2010 $	Allocation Requested for FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS - CONTINUING							
ILLINOIS							
Illinois River Basin Restoration, IL Rock Island District	7,636,000	4,512,000	725,000	382,000	336,000	400,000	1,281,000

The Illinois River Basin Restoration Study encompasses the entire Illinois River watershed within the State of Illinois, a nationally significant ecosystem. The purpose of the Illinois River Basin Restoration Study includes the development of a comprehensive plan for the restoration of the Illinois River watershed and evaluation and construction of critical restoration projects within the basin. The feasibility cost sharing agreement with the State of Illinois was signed 31 July 2002.

The Comprehensive Plan was transmitted to Congress for information in June 2008. The Plan addresses habitat, water quality, navigation, and economic opportunities. Major components include fish and wildlife conservation and rehabilitation measures; land and water resources enhancement; sediment transport; sediment removal and disposal measures; long-term resource monitoring; and a computerized inventory and analysis. The Illinois River Basin Critical Restoration Projects authorized in WRDA 2000, Section 519, (as amended by WRDA 2007) are continuing and no additional authority is required.

Sixteen critical restoration projects have been identified to date. These projects were selected based on assessment of restoration needs with involvement of Federal and non-Federal partners. Critical restoration projects are currently being evaluated through feasibility, designed, and two are proceeding with construction using Construction funds and American Recovery and Reinvestment Act funds.

Fiscal Year 2010 funds are being used to complete feasibility planning on Blackberry Creek and Alton Pool Critical Restoration Projects and continue feasibility level analysis of Senachwine Creek, and Starved Rock Pool.

Funds requested for Fiscal Year 2011 will be used to complete critical restoration project feasibility efforts at Starved Rock Pool and Senachwine Creek, and advance project feasibility efforts at Kankakee River, Ten Mile Creek, and Yellow River at an efficient rate in concert with the non-Federal sponsor.

The estimated cost of the feasibility phase is $11,040,000. In accordance with Section 519, WRDA 2000, this study is to be shared on a 65-35 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$11,500,000
Reconnaissance Phase (Federal)	460,000
Feasibility Phase (Federal)	7,176,000
Feasibility Phase (Non-Federal)	3,864,000

The recon phase was completed in July 2002. The completion date for feasibility studies for Critical Restoration Projects is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Study	Total Estimated Federal Cost $	Allocation Prior To FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Louisiana Coastal Area --Ecosystem Restoration, LA New Orleans District	92,500,000	37,6124,000[1/]	5,452,000	8,604,000[2/]	11,430,000	10,095,000	19,307,000
Louisiana Coastal Area – Science and Technology (S&T) Program, LA New Orleans District	65,000,000	4,975,000	(2,500,000)	0	6,500,000	6,500,000	49,525,000

[1/] Includes $11 million provided in Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006, PL109-148, December 2005. $1M was executed by S&T Program for Hurricane Assessment.

[2/] Includes $2,500,000 FY07 S&T allocation; per conference report, subsequently reprogrammed to support investigations.

LOCATION: Over 1 million acres of Louisiana's coastal wetlands have been lost since the 1930's; another one-third of a million acres could be lost over the next 50 years unless large-scale corrective actions are taken. Disruption of natural processes by the development of the watershed of the Mississippi River and in the Louisiana coastal area (LCA) is the primary cause of the coastal land loss. Additional impacts result from natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico. More specifically, the coastal land loss results from human intervention and natural processes, including: (1) efforts to maintain a Federal navigation channel from the Gulf of Mexico to New Orleans and farther up the Mississippi River; (2) the implementation of flood and storm damage reduction projects by or for communities in the Louisiana coastal plain; (3) oil and gas development, including thousands of miles of canals built by private interests for exploration and production; (4) natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico; and (5) storms associated with winter colds fronts, tropical storms, and hurricanes. Managing water and sediment for restoration creates/sustains nesting, feeding and resting habitats for threatened/endangered species (eagle, sturgeon, brown pelican, piping plover) and numerous migratory avian and waterfowl species. Barrier Island restoration can reduce the rate of loss of wetlands, and also can provide nesting and resting cover for brown pelican and piping plover.

JUSTIFICATION: The Louisiana Coastal Area (LCA) Ecosystem Restoration Study Report was completed in November 2004. A feasibility cost sharing agreement was executed between the Federal Government and the State of Louisiana, Department of Natural Resources, the non-Federal sponsor, in February 2000 and amended in March 2002 and October 2004. A Chief of Engineers Report for the Near Term Plan was signed on 31 January 2005.

Title VII, WRDA 2007 authorized LCA. This budget request continues the restoration planning efforts that are underway in the LCA - Ecosystem Restoration (LCA-ER) and LCA – S&T.

A 10-year plan of studies, projects and science support was developed through a public involvement process, and working closely with other Federal agencies and the State of Louisiana. All construction activities under the plan will be subject to approval by the Secretary of the Army.

LCA Ecosystem Restoration (LCA-ER) will construct significant restoration features, undertake demonstration projects, study potentially promising large-scale, long-term concepts, take other needed actions to restore the ecosystem. LCA-ER will be assisted both in the near-term and in the long-term by the independent LCA - S&T. The overall goal of LCA - Science is to inform and guide the broader Federal effort to restore the Louisiana coastal ecosystem. It will be independent of, yet responsive to, the State and Federal managers of this restoration effort, who are ultimately accountable for ensuring that the restoration effort is meeting the most critical ecological needs in the most cost-effective way. LCA-S&T will provide the necessary science support to LCA-ER to improve implementation and benefits delivery. It will also evaluate the validity of scientific hypotheses and assumptions regarding the effectiveness of current approaches to the restoration of this ecosystem, thereby reducing uncertainty over time. LCA – S&T is an integral component of the Corps effort to help protect and rebuild this ecosystem.

DESCRIPTION: In June 2006, two feasibility cost share agreements were signed: one for the Beneficial Use of Dredged Material Program feasibility study, and another for the Barataria Basin Barrier Shoreline feasibility study. In November 2008, a feasibility cost share agreement was signed that provides for the production of six reports. A feasibility cost share agreement was signed June 2009 and will provide for the production of reports for an additional four LCA features. Funding for FY 2011 reflects accelerated reporting requirements of WRDA 2007, Title VII, and the priorities of the State of Louisiana.

* The Beneficial Use of Dredged Material Program study will provide the framework, process and procedures for selecting, funding and implementing ecosystem restoration projects that involve the beneficial use of dredged material acquired from maintenance activities of Federal waterways. This study is being undertaken pursuant to the execution of a cost sharing agreement dated June 2006, and will be completed in FY 2010.

* The Barataria Basin Barrier Shoreline Restoration (BBBS) feature consists of headland and barrier island restoration. Restoring and protecting these features helps preserve the western boundary of the Barataria Basin, preserve natural hydrologic function, provide habitat crucial to migratory birds, endangered species, commercial and recreational fisheries as well as contributing to the lines of defense for risk reduction to Barataria Basin interior wetlands and transportation infrastructure. This study is being undertaken pursuant to the execution of a cost sharing agreement dated June 2006. In FY 2011, PED will continue.

* The Multipurpose Operation of Houma Navigation Lock Canal (HNC) feature involves construction of a modification to the authorized HNC Lock, located at near the southern end of the inland section of the HNC. The objective is to make more efficient use of Atchafalaya River waters and sediment flow, as well as maintain salinity regimes favorable for area wetlands. The structure would be operated to restrict saltwater intrusion and to aid in the distribution of freshwater and sediment during times of high Atchafalaya River flow. The current project is designed to limit saltwater intrusion. Minor modification in operations would provide additional benefits to the wetlands by increasing retention time of Atchafalaya River water in the Terrebonne Basin wetlands. An increased retention time would provide additional sediment and nutrients to nourish the wetlands and would benefit the forested wetlands, in addition to the fresh, intermediate, and brackish marshes adjacent to the lock and canal; the Lake Boudreaux wetlands to the north; the Lake Mechant wetlands to the west; and the Grand Bayou wetlands to the east.

* The Terrebonne Basin Barrier Shoreline Restoration feature consists of barrier island restoration of the Timbalier and Isle Derniers barrier island chains. Restoring and protecting these features helps preserve the southern boundary of the Terrebonne Basin, preserves natural hydrologic function, provides and protects habitat crucial to migratory birds, endangered species, commercial and recreational fisheries, as well as contributing to the lines of defense for risk reduction to the interior wetlands of Terrebonne Basin and transportation infrastructure The study will complete and PED will be initiated in FY 2011.

* The Small Diversion at Convent/Blind River restoration feature involves a small diversion (up to 5000 cfs) from the Mississippi River into Blind River through a new control structure. The objective of this project is to introduce sediment and nutrients into the southeast portion of Maurepas Swamp to facilitate organic deposition in the swamp, improve biological productivity, and prevent further swamp deterioration. The project will also benefit threatened/endangered species and colonial nesting birds. The study will complete in FY 2011, and PED will be initiated.

* The Amite River Diversion Canal Modification restoration feature involves the construction of gaps in the existing dredged material banks of the Amite River Diversion Canal. The objective of this project is to allow waters to introduce additional nutrients and sediment into western Maurepas Swamp to facilitate organic

deposition, improve biological productivity, and prevent further swamp deterioration. The exchange of flow would occur during high flow events on the river. This project would also provide benefits to threatened/endangered species and colonial nesting birds. The study will complete and PED will be initiated in FY 2011.

* The Medium Diversion at White Ditch restoration feature, located at White Ditch, downstream of the existing Caernarvon diversion structure, provides for a medium diversion (5,000 – 15,000 cfs) from the Mississippi River into the central River aux Chenes area using a controlled structure. The objective of the project is to provide additional freshwater, nutrients, and fine sediment to the area between the Mississippi River and River aux Chenes ridges. The introduction of additional freshwater would facilitate organic sediment deposition, improve biological productivity, and prevent further deterioration of the marshes and provide benefits to essential fish habitat , threatened/endangered species and colonial nesting birds. The study will complete in FY 2011, and PED will be initiated.

* The Convey Atchafalaya River Water to Northern Terrebonne Marshes restoration feature would increase existing Atchafalaya River influence to central (Lake Boudreaux) and eastern (Grand Bayou) Terrebonne marshes via the Gulf Intercoastal Waterway (GIWW)by introducing flow into the Grand Bayou Basin. This may be accomplished by enlarging the connecting channel (Bayou L'Eau Bleu) to capture as much of the surplus flow (max. 2000 to 4000 cfs) that would otherwise leave the Terrebonne Basin. Gated control structures would be installed to restrict channel cross-sections to prevent increased saltwater intrusion during the late summer and fall when Atchafalaya River influence is typically low. Some auxiliary freshwater distribution structures may be included. This project also includes increasing freshwater supply through repairing banks along the GIWW, enlarging constrictions in the GIWW, and diverting additional Atchafalaya River freshwater through the Avoca Island Levee and into Bayou Chene/GIWW system. Benefits to threatened/endangered species and colonial nesting birds are in addition to wetlands benefits. In FY 2011, the study will complete and PED will be initiated.

* The Land Bridge between Caillou Lake and Gulf of Mexico feature would maintain the natural hydrologic barrier between the Gulf and Caillou Lake and associated Terrebonne Basin wetlands as well as allow increased freshwater influence from the Atchafalaya River waters flowing eastward into Four League Bay. Project features to be considered include armoring the Gulf shoreline, rock armoring or marsh creation to plug/fill broken marsh to preserve the integrity of the land bridge and increase freshwater influences. Coastal marsh and habitat crucial to migratory birds would be protected. The bald eagle and essential fish habitat would also benefit.

* The Gulf Shoreline at Point Au Fer Island (Point Au Fer) feature provides for stabilizing the Gulf shoreline of this island, thereby precluding the formation of direct connections between the Gulf and Four League Bay, a situation that would lead to increasing salinities of island and inland coastal wetlands influenced by Atchafalaya River water. Protecting this island also protects habitat crucial to migratory birds, and provides storm surge protection to the southwestern corner of the Terrebonne Bay wetland system.

*Modification to the Caernarvon feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. Currently, the structure operates on average at about one-half capacity to maintain salinity gradients. The wetlands of St. Bernard and Plaquemines Parishes suffered extensive losses from Hurricane Katrina and will directly benefit from the added sediments and freshwater introduced from the Mississippi River by increasing the freshwater introduction volume. The bald eagle and essential fish habitat are also expected to benefit.

* The Modification to Davis Pond feature will increase wetland creation and protection outputs for this existing structure through changes in the structure's operation. The structure, operating on average at about one-half capacity, maintains salinity gradients in the central Barataria Basin. In addition to wetland creation, the freshwater wetlands of the upper Barataria Basin will be directly benefitted by the added sediments and freshwater introduced from the Mississippi River. The bald eagle and essential fish habitat are also expected to benefit.

* The Small Bayou Lafourche Reintroduction feature consists of increasing channel flows by introducing 1,000 cfs of Mississippi River water into the Bayou at Donaldsonville to mimic the actions of a river crevasse. The introduction method will be determined as a study output. Dredging and bank stabilization would be required to control water levels and maintain bank stability and a sediment trap. Weirs are also features. Projections are that 2,500 acres of coastal marsh would

be protected, thousands of acres would benefit as would the bald eagle and essential fish habitat. The State of Louisiana intends to complete the study and perform construction. The study will continue in FY 2011.

* The Diversion at Myrtle Grove (Myrtle Grove) with dedicated dredging project consists of diverting fresh water and sediment from the Mississippi River into the Barataria Basin through a box culvert system and using 2 mcy of Mississippi River material annually for several years to create marsh wetlands. As authorized, this feature is expected to deliver benefits in the range of 11,500 acres and would benefit EFH, threatened/endangered species, colonial nesting birds. The study will continue in FY 2011.

* The Small Diversion at Hope Canal is expected to enhance approximately 36,000 acres of Maurepas Swamp wetlands primarily by introducing approximately 5,000 cfs from the Mississippi River. Project features include two box culverts; a receiving pond reinforced with riprap; and a 50-foot wide, and a 10-foot deep outflow channel roughly 27,500 feet long that will run from the river to U.S. Interstate 10. In FY 2011, the study will be initiated.

* The Mississippi River – Gulf Outlet (MRGO Env) environmental restoration feature involves the construction of shoreline protection measures such as rock breakwaters along the north bank of the MRGO and along important segments of the southern shoreline of Lake Borgne. This study is on hold currently pending a determination in a related study under section 7013 of WRDA 2007 on the best way to restore the area affected by the MRGO. That study is also considering additional ecosystem restoration features including marsh creation, freshwater introduction, barrier island restoration, and channel modification, with the goal of a coordinated suite of measures to stabilize and maintain key estuarine components.

* The Mississippi River Hydro/Delta Management feature is a combination of the Mississippi River Hydrodynamic Model and the Mississippi River Delta Management Study features. This combined feature would provide a model to assess the effects on navigation and sediment dynamics along the Mississippi River mainstem associated with combinations of Mississippi River diversions. Model outputs would also be used to formulate and assess management options for the Delta. The MS River Hydrodynamic/Delta Management Study continues in FY 2011.

* Demonstration Projects – These projects are designed to resolve critical areas of scientific or technological uncertainty related to the implementation of the restoration plan and ultimately the comprehensive plan. New Orleans District will prepare and execute a Feasibility Cost Sharing Agreement/Project Management Plan for approved projects and initiate/execute the study. The study will result in preparation of a decision document. The document will make recommendations regarding demonstration projects. This effort will initiate in FY 2011.

* Investigations of Existing Structures – A review will be conducted of each federally-authorized water resources project in the coastal Louisiana ecosystem under construction or completed as of 8 November 2007. The review will result in identifying projects that need to be modified for restoration purposes and lead to the production of a Project Management Plan and initiation of a study to determine the advisability of potential modifications of existing structures. This effort will initiate in FY 2011.

The estimated cost of preparing the Near-Term Program follow-on feasibility studies is $185,000,000.

Total Estimated Study Cost	$185,000,000	Total Estimated PED Cost (65/35)	$73,300,000
Reconnaissance Phase (Federal)	N/A	Federal	$47,645,000
Feasibility Phase (Federal)	92,500,000	Non-Federal	$25,655,000
Feasibility Phase (Non-Federal)	92,500,000		

LCA – S&T:

The estimated cost of the LCA S&T Program included in the Chiefs report dated January 2005 is $100,000,000 over a 10-year period cost shared 65 percent Federal/35 percent non-Federal as authorized in WRDA 2007.

Total Estimated Program Cost	$100,000,000
Federal	65,000,000
Non-Federal	35,000,000

FY 2011 funds will focus on ongoing system–wide priorities which include the monitoring and modeling of the hydrodynamics and sediment transport capabilities of the lower Mississippi River, the development of defensible wetland and estuarine assessment techniques to evaluate to benefits and impacts of diversions and other restoration projects, the quantification of the role of wetlands and coastal features in storm surge mitigation and wave attenuation, and the development of both project-specific and programmatic adaptive management plans. Products will take the form of technical reports, technical notes, synthesis papers and scientific presentations. An emphasis will be placed on technical transfer directly to project managers and planning leads. Specific products scheduled to be completed during FY 2011 include Phase 1 of the Mississippi River Regional hydrodynamic and sediment modeling effort, an analysis of the role of Louisiana barrier islands in storm surge and wave attenuation, the completion of construction of suspended sediment data for stations throughout the lower Mississippi River, the expansion of efforts to measure subsidence in wetlands, support of the Coastal Restoration Monitoring System and it's utilization to develop a programmatic adaptive management framework and the delivery of operational sediment budgets for the Barataria and Terrebonne basins. Other efforts will include data management and distribution, technical transfer of information to project managers through publication, symposiums, web seminars and a technical support program. External review of the LCA program will be provided by the LCA Science Board and Coordination with others will be aided through an interagency Science Coordination team. The Science Board is scheduled to produce a peer-reviewed publication on diversions and delta building during FY 2011.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
MINNESOTA							
Minnesota River Watershed Study, MN and SD (Minnesota River Basin, MN and SD) St. Paul District	5,260,000	0	33,000	0	296,000	350,000	4,581,000

The Minnesota River in southwestern Minnesota originates at the Minnesota-South Dakota border, flows 335 miles through some of the richest agricultural land in Minnesota and joins the Mississippi River at Minneapolis and St. Paul, Minnesota. The river drains 16,770 square miles, of which 14,840 are in Minnesota, 1,610 in South Dakota, and the remainder in North Dakota and Iowa. The Minnesota River reconnaissance study recommended three Feasibility studies. One of the recommendations included an integrated watershed, water quality management, and ecosystem restoration analysis that would produce a watershed management plan to facilitate better watershed management and identify specific opportunities for the Corps of Engineers and other stakeholders. This study was initiated in September 2008 and the Minnesota Environmental Quality Board is acting as the local sponsor. An interagency technical team will be formed with expertise in hydrology, geomorphology, limnology, ecology, agriculture, and economics, planning and modeling. The non-Federal participants would be from the Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (DNR), the Minnesota Board of Water and Soil Resources (BWSR), the Metropolitan Council of the Twin Cities, Minnesota State University – Mankato, the University of Minnesota and the Nature Conservancy. Federal participants would include the Corps of Engineers, the Natural Resources Conservation Service (NRCS), the U.S. Fish and Wildlife Service (FWS), the U.S. Geological Survey (USGS), and the U.S. Environmental Protection Agency (EPA). The study will take advantage of advanced watershed modeling techniques to understand the relationship of hydrologic and water quality parameters and the relative impacts and benefits of alternative measures for flood damage reduction and ecosystem restoration and would integrate the efforts of a wide range of agencies currently working independently, leading to more cost-effective use of existing government programs. It is expected that the integrated watershed study will identify additional projects for study and implementation. The local sponsors will be collecting LiDAR in the Minnesota River Basin as an item of work in-kind.

Fiscal Year 2010 funds will be used to continue the feasibility study. Funds requested for Fiscal Year 2011 will be used to continue the feasibility study. The preliminary estimated cost of the feasibility phase is $10,520,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Feasibility Study Cost	$10,520,000
Reconnaissance Phase (Federal)	NA 1/
Feasibility Phase (Federal)	5,260,000
Feasibility Phase (Non-Federal)	5,260,000

A feasibility cost share agreement was executed 29 September 2008. The feasibility study is scheduled for completion in December 2013.

1/ Reconnaissance phase funded under overall study authority for Minnesota River Basin.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
MINNESOTA							
Red River of the North Basin, MN, ND, SD and Manitoba, Canada St. Paul District	$7,630,000	635,000	2,868,000	178,000	900,000	433,000	$2,616,000

A watershed study for the entire Red River of the North Basin was initiated with execution of a Feasibility Cost Share Agreement in June 2008. Reconnaissance activities will continue for specific locations within the Basin as described in the reconnaissance report approved in October 2002. The Red River of the North, a northward flowing stream, originates at the convergence of the Ottertail, Minnesota, and Bois de Sioux Rivers, Minnesota and North Dakota and ends at Lake Winnipeg in Manitoba, Canada. Within the United States, the Red River drains portions of South Dakota, Minnesota, and North Dakota and forms the border between the latter two. The basin has lost much of the natural environment that existed in early settlement times, and flooding has repeatedly caused economic and human hardship. Major flood events totaling billions of dollars in damages have occurred in 1826, 1852, 1893, 1897, 1914, 1919, 1950, 1974, 1975, 1978, 1979, 1985, 1989, 1996, and 1997. Significant floods with substantial documented damages occurred on tributaries in other years. Drainage, river modifications, and land use changes (including those for enhancement of agriculture) adversely affected the natural ecosystems. The basin's water resources issues have been the focus of several watershed planning and management initiatives. Studies will address flood damage reduction and ecosystem restoration. Federal agencies, state agencies in Minnesota, North Dakota, and South Dakota, local units of government, non-profit environmental organizations, Canadian interests, business and agricultural representatives, and citizens participating in support of these initiatives see this study as critical to continued basin planning and implementation. The initial task in the basin-wide watershed study is development of a digital elevation model using LIDAR data, followed by the development of a decision support system.

Fiscal Year 2010 funds will be used to continue the feasibility study . Funds requested for Fiscal Year 2011 will be used to continue the basin-wide watershed study, as well as produce reconnaissance supplements identifying additional feasibility studies. The estimated cost of the feasibility phase is $15,260,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$16,290,000 1/
Reconnaissance Phase (Federal)	1,030,000
Feasibility Phase (Federal)	7,630,000
Feasibility Phase (Non-Federal)	7,630,000

The completion schedule for each feasibility study will be established during negotiations with sponsors to determine the scope of study. The completion dates for the Red River Basin Wide Feasibility study is scheduled for December 2012.

1/ Excludes costs for Wild Rice River, MN; Roseau, MN; Fargo, ND-Moorhead, MN and Upstream; and Fargo, ND-Moorhead, MN Metro; feasibility studies.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Environmental Restoration

PROJECT: Louisiana Coastal Area, Louisiana (LCA) Program (New Start)

LOCATION: The project includes the Louisiana coastal area from Mississippi to Texas, that includes the following Louisiana parishes in the study area: Ascension, Assumption, Calcasieu, Cameron, Iberia, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and Vermilion.

DESCRIPTION: The program's primary purpose is to help restore the complex coastal wetlands and barrier island ecosystem of Louisiana. The program would achieve this purpose mostly through projects involving river diversion of sediment and water or head land and barrier island restoration. The Louisiana coastal plain contains one of the largest expanses of coastal wetlands in the contiguous United States, and accounts for 90 percent of the total coastal marsh loss in the Nation. These coastal wetlands, built by the deltaic processes of the Mississippi River, contain an extraordinary diversity of coastal habitats that range from narrow natural levee and beach ridges to expanses of forested swamps and freshwater, intermediate, brackish, and saline marshes. Taken as a whole, the unique habitats, with their hydrological connections to each other, upland areas, the Gulf of Mexico, and migratory routes of birds, fish, and other species, combine to place the coastal wetlands of Louisiana among the Nation's most productive and important natural assets. In human terms, these coastal wetlands have been a center for culturally diverse social development.

AUTHORIZATION: WRDA 2007, Title VII (Public Law 110-114)

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

TOTAL BENEFIT - COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

INITIAL BENEFIT - COST RATIO: N/A (Action is environmental restoration; not subject to traditional benefit-cost analyses.)

BASIS OF BENEFITS: Benefits are based on the Report of the Chief of Engineers on Louisiana Coastal Area, Ecosystem Restoration Feasibility Study, dated 31 January 2005. The outputs for features are not readily translatable to dollars. Thus, a traditional BC analysis could not be performed. Consequently the CE/ICA method was used for the comparison of ecological output benefits vs. cost. Combinations of features were subjected to cost effectiveness analyses comparing annual average costs-to-benefits defined in non-monetary units (Average Annual Habitat Units).

SUMMARIZED FINANCIAL DATA – Total Project			ACCUM PCT of EST FED COST	STATUS (1 October 2010)	PCT CMPL	PHYSICAL COMPETION SCHEDULE
Estimated Federal Cost		$1,138,575,000				
Programmed	$1,138,575,000					
Unprogrammed						
Estimated Non-Federal Cost		$ 612,925,000			0	
Programmed: Cash	$ 0					
Other	$ 612,925,000					
Total Estimated Project Programmed Cost		$ 1,751,500,000				
Total Estimated Project Unprogrammed Cost		0				
Total Estimated Project Cost		$ 1,751,500,000				
Allocations as of 30 September 2008		$ 0				
Allocations for FY 2009		0				
Allocations for FY 2010		0				
Conference Allowance for FY 2010		0				
Allocations for FY 2010		0				
Allocations Requested for FY 2011		19,000,000				
Programmed Balance to Complete After FY 2011		$ 1,119,575,000				
Un-Programmed Balance to Complete After FY 2011		$ 0				
Federal Programmed Balance to Complete After FY 2011		$ 1,119,575,000			0	
			0%	Total Project	0	

Mississippi Valley Division New Orleans District Louisiana Coastal Area, Louisiana

PHYSICAL DATA:

- Pumping Stations & Siphon Facility
- Sediment Traps
- Dredging
- Dredged Material
- Bank Stabilization
- Monitoring Stations
- Adjustable Weirs
- Land Bridge Creation
- Breakwaters
- Diversion Structure
- Conveyance Channel
- Groins

JUSTIFICATION: Most of Louisiana's coastal wetlands were built by deltaic processes involving the transport of enormous volumes of sediment and water by the Mississippi River. This sediment was eroded from the lands of the vast Mississippi River Basin in the interior of North America. For the last several thousand years, the dominance of the land building or deltaic processes resulted in a net increase of more than four million acres of coastal wetlands. In addition, this delta building produced an extensive skeleton of higher natural levee ridges along the past and present Mississippi River channels, distributaries, and bayous in the Deltaic Plain, as well as the beach ridges of the Chenier Plain. The landscape created by these deltaic processes supports a highly productive ecosystem.

Since the 1930s coastal Louisiana has lost more than 1.2 million acres (485,830 ha) (Barras et al. 2003; Barras et al. 1994; and Dunbar et al. 1992). As recently as the 1970s, the loss rate for Louisiana's coastal wetlands was as high as 25,200 acres per year (10,202 ha per year). The rate of loss from 1990 to 2000 was about 15,300 acres per year (6,194 ha per year), mainly due to the residual effects of past human activity (Barras et al. 2003). It was estimated in 2000 that coastal Louisiana would continue to lose land at a rate of approximately 6,600 acres per year (2,672 ha per year) over the next 50 years. It is estimated that an additional net loss of 328,000 acres (132,794 ha) may occur by 2050, which is almost 10 percent of Louisiana's remaining coastal wetlands (Barras et al. 2003). The cumulative effects of human and natural activities in the coastal area have shifted the coastal area from a condition of net land building to one of land loss.

This coastal land loss results from human intervention and natural processes, including: (1) efforts to maintain a Federal navigation channel from the Gulf of Mexico to New Orleans and farther up the Mississippi River; (2) the implementation of flood and storm damage reduction projects by or for communities in the Louisiana coastal plain; (3) oil and gas development, including thousands of miles of canals built by private interests for exploration and production; (4) natural subsidence and erosion of the lands where the Mississippi delta meets the Gulf of Mexico; and (5) storms associated with winter colds fronts, tropical storms, and hurricanes.

Today, the ecosystem is experiencing significant saltwater intrusion. Many of its wetlands are in the process of converting to more brackish, more saline, or open water. Deprived of nutrients previously provided by a free flowing river that could flood into, and meander across, a portion of the deltaic plain, the plants that now hold together and define the surface of these wetlands are more susceptible to dying off. Once denuded of vegetation, the fragile substrate is left exposed to the erosive forces of waves and currents, especially during tropical storm events.

Approximately 70 percent of all waterfowl that migrate through the continental United States use the Mississippi and Central flyways. With more than 5 million birds wintering in Louisiana, the Louisiana coastal wetlands provide habitat to these birds, and to neo-tropical migratory songbirds and other avian species that use them as stopover habitat. Coastal Louisiana also provides nesting habitat for many species of water birds, such as the endangered brown pelican.

Excluding Alaska, Louisiana produced the Nation's highest commercial marine fish landings (about $343 million) excluding mollusk landings such as clams, oysters, and scallops (National Marine Fisheries Service (NMFS) 2003). Recent data from the U.S. Fish and Wildlife Service (USFWS) show expenditures on recreational fishing (trip and equipment) in Louisiana to be nearly $703 million, and hunting expenditures were valued at $446 million in 2001 (USFWS 2002). The continuation of these economic and habitat values depends on the health of the coastal Louisiana ecosystem.

The restoration of Louisiana's coastal wetlands and barrier island ecosystem may also help reduce storm surge impacts (storm driven waves and tides) in populated areas or to significant commercial-industrial facilities that are present along the coast. Coastal Louisiana is home to over 2 million people, representing 46 percent of the state's population. When investments in facilities, supporting service activities, and the urban infrastructure are totaled, the capital investment in the Louisiana coastal area adds up to approximately $100 billion.

FISCAL YEAR 2010: N/A

FISCAL YEAR 2011: The requested amount of $19,000,000 will be applied to the construction of authorized restoration projects with reports that have favorably completed Executive Branch review.

Requirements for Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way, including borrow and dredged material disposal areas.		
Accomplish alterations to roads, pipelines, cables, wharves, oil wells, and any other facilities necessary for construction of the project.		
Bear 35 percent of the total project cost, to include the items listed above and a cash contribution or equivalent work specifically undertaken, as an integral part of the project subsequent to the reports cited in the authorizing language.		
Total Non-Federal Costs	612,925,000	

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below for all projects included in the LCA program. Local sponsor cost share responsibilities total $612,925,000 for the program representing a 65% Federal/ 35% Non-Federal cost share.

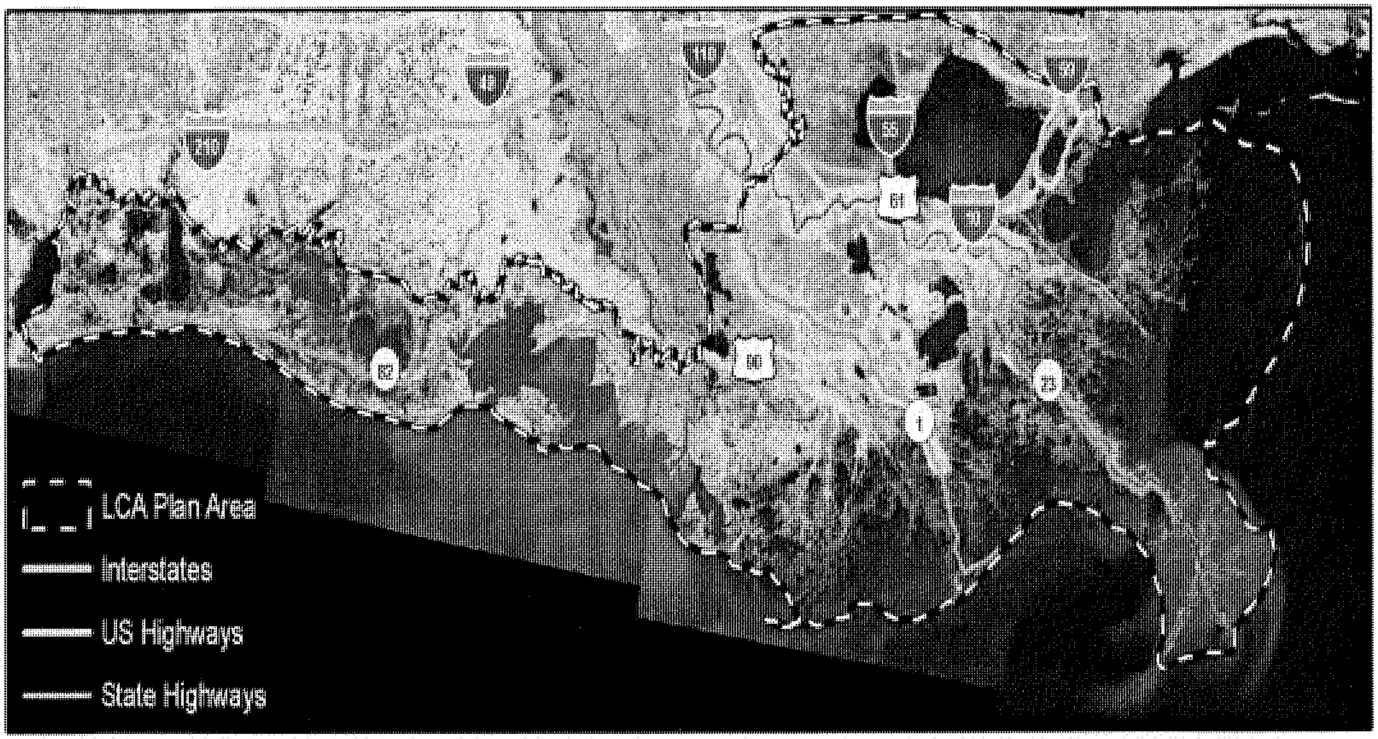
STATUS OF LOCAL COOPERATION: The Project Partnership Agreements between the Federal Government and the State of Louisiana will be executed for all approved projects prior to initiation of Construction. Local interests have accomplished significant work compatible and integral to the project. Actual credit for equivalent work in lieu of cash contributions will be given subject to technical evaluations and audit.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal project cost estimate of $1,138,575,000 is the initial estimate submitted to Congress and as authorized in WRDA 2007.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: All environmental documentation associated with the work planned will be completed prior to initiation of construction in Fiscal Year 2011.

OTHER INFORMATION: The LCA program consists of 17 individual project elements to be constructed within the program.

Projects to be completed within the total LCA program are subject to the approval of decision documents that would support construction activity after execution of a PPA.	Estimated Federal Cost	Estimated Non-Federal Cost	Total Estimated Cost
Amite River Diversion Canal Modification	3,640,000	1,960,000	5,600,000
Atchafalaya River Water to Northern Terrebonne Marshes	143,880,000	77,320,000	221,200,000
Barataria Basin Barrier Shoreline Restoration (BBBS)	157,690,000	84,910,000	242,600,000
Beneficial Use of Dredged Material Program (BUD Mat)	65,000,000	35,000,000	100,000,000
Demonstration Projects	61,750,000	33,250,000	95,000,000
Gulf Shoreline at Point Au Fer Island	28,210,000	15,190,000	43,400,000
Land Bridge Between Caillou Lake and Gulf of Mexico	36,595,000	19,705,000	56,300,000
Medium Diversion at Myrtle Grove with Dedicated Dredging	180,895,000	97,405,000	278,300,000
Medium Diversion at White's Ditch	55,965,000	30,135,000	86,100,000
Mississippi River Gulf Outlet (MRGO) Environmental Restoration	68,445,000	36,855,000	105,300,000
Modification of Caernarvon Diversion	13,455,000	7,245,000	20,700,000
Modification of Davis Pond Diversion	41,730,000	22,470,000	64,200,000
Multipurpose Operation of Houma Navigation Canal Lock	11, 765,000	6,335,000	18,100,000
Small Bayou Lafourche Reintroduction	86,775,000	46,725,000	133,500,000
Small Diversion at Convent/Blind River	57,200,000	30,800,000	88,000,000
Small Diversion at Hope Canal	44,590,000	24,010,000	68,600,000
Terrebonne Basin Barrier Shore Line Restoration	80,990,000	43,610,000	124,600,000
Total LCA Program Estimate	1,138,575,000	612,925,000	1,751,500,000



Mississippi Valley Division New Orleans District Louisiana Coastal Area, Louisiana

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APPROPRIATION TITLE: Construction – Environmental Mitigation, Restoration, and Protection

PROJECT: Upper Mississippi River Restoration, Illinois, Iowa, Minnesota, Missouri, and Wisconsin (Continuing)

LOCATION: The project is authorized for those river reaches having commercial navigation channels on the Upper Mississippi River, Illinois River, Minnesota River, St. Croix River, and Kaskaskia River in the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. The following counties are included: (Illinois) Jo Daviess, Carroll, Whiteside, Rock Island, Mercer, Henderson, Hancock, Adams, Pike, Calhoun, Jersey, Madison, St. Clair, Monroe, Randolph, Jackson, Union, Alexander, Pulaski, Brown, Cass, Schuyler, Fulton, Mason, Peoria, Tazewell, Woodford, Marshall, Putnam, Bureau, LaSalle, Grundy, Will; (Iowa) Allamakee, Clayton, Dubuque, Jackson, Clinton, Scott, Muscatine, Louisa, Des Moines, Lee; (Wisconsin) St. Croix, Pierce, Pepin, Buffalo, Trempealeau, La Cross, Vernon, Crawford, Grant; (Minnesota) Anoka, Hennepin, Scott, Dakota, Ramsey, Washington, Goodhue, Wabasha, Winona, Houston; (Missouri) Clark, Lewis, Marion, Ralls, Pike, Lincoln, St. Charles, St. Louis, Jefferson, Ste. Genevieve, Perry, Cape Girardeau, Scott, Mississippi.

DESCRIPTION: The purpose of the Upper Mississippi River Restoration project is to address adverse impacts to the aquatic ecosystem of the Upper Mississippi River. Habitat rehabilitation and enhancement projects are effectively preserving and improving fish and wildlife habitat on the Upper Mississippi River System (UMRS). Projects completed to date have been designed to counteract the effects of backwater sedimentation through dike construction to limit sedimentation of prime habitat and dredging to restore aquatic habitat; provide water level control and optimal food growth for waterfowl; create islands to decrease wind generated disturbances, thereby reducing turbidity; alter the flow of water to side channels and backwaters to decrease flows of sediment-laden water during high water and to increase dissolved oxygen levels during low water; increase the diversity and abundance of mast (nut) producing trees and prairies to benefit wildlife. Long-Term Resource Monitoring provides scientific information for more informed management of the UMRS ecosystem. Ninety-seven percent of authorized Upper Mississippi River Restoration appropriations have been used to design and construct habitat rehabilitation and enhancement projects and for Long-Term Resource Monitoring. Recreation development is an authorized program element. All work is programmed.

AUTHORIZATION: Fiscal Year 1985 Supplemental Appropriations Act, P.L. 99-88; Water Resources Development Act of 1986, PL 99-662, Section 1103; Water Resources Development Act of 1990, P.L. 101-640, Section 405; Water Resources Development Act of 1992, P.L. 102-580, Section 107; Water Resources Development Act of 1999, P.L. 106-53, Section 509; and the Water Resources Development Act of 2007, P.L. 110-114, Section 3177.

REMAINING BENEFIT-REMAINING COST: The remaining benefit-remaining cost ratio for the entire project is not applicable because monetary benefits are not quantified.

TOTAL BENEFIT-COST RATIO: The total benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified. Projects within the Upper Mississippi River Restoration project are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners.

INITIAL BENEFIT-COST RATIO: The initial benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified.

BASIS OF BENEFIT-COST RATIO: The basis for the benefit-cost ratio for the entire project is not applicable because monetary benefits are not quantified.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 766,195,000	
Estimated Non-Federal Cost		8,204,000	
Cash Contribution	$ 8,204,000		
Other Costs	0		
Total Estimated Project Cost		$ 774,399,000	
Allocations to 30 September 2007		$ 319,061,000	
Allocation for FY 2008		16,851,000	
Allocation for FY2009		17,713,000	
Recover Act Allocations To Date		13,179,000	
Conference Allowance for FY 2010		16,470,000	
Allocation for FY 2010		16,470,000	
Allocations to 30 September 2010		383,274,000	50
Allocation Requested for FY 2011		$ 21,150,000	53
Programmed Balance to Complete After FY 2011		361,771,000	
Unprogrammed Balance to Complete After FY 2011		0	

STATUS: (1 January 2010)		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE $^{1/}$
Long Term Resource Monitoring		NA	NA
Economic Impacts of Recreation Study		100	(Sep 92)
Traffic Monitoring		100	(Sep 90)
Habitat Rehabilitation and Enhancement Projects (Construction)			
Angle Blackburn, MO	ST. LOUIS DISTRICT	0	Deferred
Batchtown Mgt. Area, IL	ST. LOUIS DISTRICT	90	Dec 09
Calhoun Point, IL	ST. LOUIS DISTRICT	97	TBD
Clarksville Refuge, MO	ST. LOUIS DISTRICT	100	(Apr 90)
Cuivre Island, MO	ST. LOUIS DISTRICT	100	(Jul 99)
Dresser Island, MO	ST. LOUIS DISTRICT	100	(Sep 91)
Establishment Chute, MO	ST. LOUIS DISTRICT	0	Deferred
Godar, IL	ST. LOUIS DISTRICT	1	TBD
Jefferson Barracks Side Channel	ST. LOUIS DISTRICT	0	Deferred
Least Tern, MO	ST. LOUIS DISTRICT	22	Deferred
Norton Woods, MO	ST. LOUIS DISTRICT	0	Sep 14
Pharrs Island, Phase I, MO	ST. LOUIS DISTRICT	100	(Jun 92)
Piasa & Eagle Nest Island, IL	ST. LOUIS DISTRICT	1	TBD
Pool 24 Islands, MO	ST. LOUIS DISTRICT	1	TBD
Pools 25 and 26, MO	ST. LOUIS DISTRICT	32	TBD
Reds Landing, IL	ST. LOUIS DISTRICT	0	Deferred
Rip Rap Landing, IL	ST. LOUIS DISTRICT	4	TBD
Salt Lake/Ft Chartres S.C., IL	ST. LOUIS DISTRICT	7	TBD
Stag & Keaton Is., MO	ST. LOUIS DISTRICT	100	(Sep 98)
Stump Lake, IL	ST. LOUIS DISTRICT	100	(Nov 98)
Schenimann, MO	ST. LOUIS DISTRICT	15	TBD
Stone Dike Alteration, IL/MO	ST. LOUIS DISTRICT	10	Deferred
Swan Lake, IL	ST. LOUIS DISTRICT	97	TBD
Ted Shanks, MO	ST. LOUIS DISTRICT	8	TBD
Wilkinson Island, IL	ST. LOUIS DISTRICT	3	TBD
Andalusia Refuge, IL	ROCK ISLAND DISTRICT	100	(Dec 94)
Banner Marsh, IL	ROCK ISLAND DISTRICT	100	(Dec 03)
Bay Island, MO	ROCK ISLAND DISTRICT	100	(Nov 94)
Beaver Island, IA	ROCK ISLAND DISTRICT	3	TBD

STATUS: (1 January 2010) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE[1/]
Bertom Lake, WI	ROCK ISLAND DISTRICT	100	(Jun 92)
Big Timber, IA	ROCK ISLAND DISTRICT	100	(Jun 95)
Brown's Lake, IA	ROCK ISLAND DISTRICT	100	(Sep 94)
Chautauqua Refuge, IL	ROCK ISLAND DISTRICT	100	(Dec 03)
Cottonwood Island, MO	ROCK ISLAND DISTRICT	100	(Dec 99)
Fox Island, MO	ROCK ISLAND DISTRICT	43	TBD
Gardner Div., IL	ROCK ISLAND DISTRICT	100	(Jan. 98)
Huron Island, IA	ROCK ISLAND DISTRICT	9	TBD
Lake Odessa, IA	ROCK ISLAND DISTRICT	80	TBD
Pool 11 Islands, WI/IA	ROCK ISLAND DISTRICT	100	(Sept 07)
Pleasant Creek, IA	ROCK ISLAND DISTRICT	100	(Jan 03)
Monkey Chute, MO	ROCK ISLAND DISTRICT	100	(Aug 89)
Peoria Lake, IL	ROCK ISLAND DISTRICT	100	(Sep 97)
Peosta Channel, IA	ROCK ISLAND DISTRICT	0	Deferred
Pool 12 Overwintering IA/IL	ROCK ISLAND DISTRICT	23	TBD
Potters Marsh, IL	ROCK ISLAND DISTRICT	100	(Jun 96)
Princeton, IA	ROCK ISLAND DISTRICT	100	(Dec 01)
Rice Lake, IL	ROCK ISLAND DISTRICT	22	TBD
Smith's Creek, IA	ROCK ISLAND DISTRICT	9	Deferred
Spring Lake, IL	ROCK ISLAND DISTRICT	100	(Sep 01)
Ambrough Slough, WI	ST. PAUL DISTRICT	100	(Sep 04)
Blackbird Slough, MN	ST. PAUL DISTRICT	0	Deferred
Blackhawk Park, WI	ST. PAUL DISTRICT	100	(Nov 90)
Bussey Lake, IA	ST. PAUL DISTRICT	100	(Jun 96)
Capoli Slough, WI	ST. PAUL DISTRICT	20	TBD
Cold Springs, WI	ST. PAUL DISTRICT	100	(Aug 94)
Conway Lake, IA	ST. PAUL DISTRICT	10	TBD
East Channel, WI, MN	ST. PAUL DISTRICT	100	(Jun 97)
Finger Lakes, MN	ST. PAUL DISTRICT	100	(Jul 94)
Guttenberg Fish Ponds, IA	ST. PAUL DISTRICT	100	(Oct 90)
Harpers Slough, IA	ST. PAUL DISTRICT	22	TBD
Indian Slough, WI	ST. PAUL DISTRICT	100	(Jun 94)
Island 42, MN	ST. PAUL DISTRICT	100	(May 87)
Lake Onalaska, WI	ST. PAUL DISTRICT	100	(Jul 90)

STATUS: (1 January 2010) (Continued)

		PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE [1]
Lake Winneshiek, WI	ST. PAUL DISTRICT	7	TBD
Lansing Big Lake, IA	ST. PAUL DISTRICT	100	(Nov 94)
Long Lake, WI	ST. PAUL DISTRICT	100	(May 00)
Long Meadow Lake, MN	ST. PAUL DISTRICT	100	(Nov 06)
McGregor Lake, WI	ST. PAUL DISTRICT	2	TBD
Miss. River Bank Stabilization, MN/WI	ST. PAUL DISTRICT	100	(Sep 99)
Peterson Lake, MN	ST. PAUL DISTRICT	100	(Jun 96)
Polander Lake, MN	ST. PAUL DISTRICT	100	(Nov 00)
Pool 8 Isl, Phase I, WI	ST. PAUL DISTRICT	100	(Jun 93)
Pool 8 Isl, Phase II, WI	ST. PAUL DISTRICT	100	(Sep 99)
Pool 9 Isl Protection, WI	ST. PAUL DISTRICT	100	(Jun 95)
Pool 8 Isl, Phase III, WI	ST. PAUL DISTRICT	65	TBD
Pool Slough, IA	ST. PAUL DISTRICT	100	(Apr 07)
Rice Lake, MN	ST. PAUL DISTRICT	100	(Nov 98)
Small Scale Drawdown, WI	ST. PAUL DISTRICT	100	(Sep 97)
Spring Lake Peninsula, WI	ST. PAUL DISTRICT	100	(Nov 94)
Spring Lake Islands, WI	ST. PAUL DISTRICT	100	(Jul 06)
Trempealeau NWR, WI	ST. PAUL DISTRICT	100	(Sep 99)
Whitewater River, MN	ST. PAUL DISTRICT	2	Deferred
Zumbro River, WI	ST. PAUL DISTRICT	0	Deferred
Recreation		0	Unscheduled
Habitat Needs Assessment		100	(Sep 00)

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[1] Parentheses indicate actual date.

JUSTIFICATION: Implementation of the Upper Mississippi River Restoration project is essential to the continued viability of the ecosystem of the Upper Mississippi River and important to the long-term public acceptance and support of Upper Mississippi River System (UMRS) navigation. Habitat rehabilitation and enhancement projects help reduce the negative effects of navigation features on the system's backwater and side channels. Projects are selected for design and construction based on continued assessment of habitat restoration and enhancement opportunities as determined by the involved Federal and non-Federal partners. Long-Term Resource Monitoring provides data to indicate trends in key environmental parameters, analyzing sedimentation and other UMRS resource problems, and producing a spatial information database. An Economic Impacts of Recreation Study has been conducted to enable Federal and non-Federal management decisions to better consider impacts on recreation and the consequent changes in recreation-related expenditures in the local and regional economies.

FISCAL YEAR 2010: The requested amount will be used to continue projects under way in FY 2009 and to continue monitoring and other restoration-related activities, as follows:

PROJECT	DISTRICT	AMOUNT	STATUS
Batchtown Mgmt Area III, IL	ST. LOUIS DISTRICT	1,487,000	Complete Construction
Calhoun Point, IL	ST. LOUIS DISTRICT	25,000	Complete Construction
Pool 24 Islands, MO	ST. LOUIS DISTRICT	75,000	Initiate Design
Pool 25 and 26, MO	ST. LOUIS DISTRICT	150,000	Complete Design
Pool 25 and 26, MO	ST. LOUIS DISTRICT	200,000	Initiate Construction
Rip Rap Landing, IL	ST. LOUIS DISTRICT	50,000	Continue Design
Swan Lake, IL	ST. LOUIS DISTRICT	1,000,000	Complete Construction
Ted Shanks, MO	ST. LOUIS DISTRICT	100,000	Initiate Construction
Wilkinson Island, IL	ST. LOUIS DISTRICT	50,000	Continue Design
Beaver Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Fox Island	ROCK ISLAND DISTRICT	200,000	Complete Design
Fox Island	ROCK ISLAND DISTRICT	2,000,000	Initiate Construction
Huron Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Rice Lake, IL	ROCK ISLAND DISTRICT	200,000	Complete Design
Rice Lake, IL	ROCK ISLAND DISTRICT	1,000,000	Initiate Construction
Pool 12, IL	ROCK ISLAND DISTRICT	50,000	Initiate Design
Capoli Slough, WI	ST. PAUL DISTRICT	100,000	Initiate Construction
Conway Lake, IA	ST. PAUL DISTRICT	100,000	Continue Design
Harpers Slough, IA	ST. PAUL DISTRICT	100,000	Continue Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	75,000	ContinueDesign

FISCAL YEAR 2010 (Continued):

PROJECT		AMOUNT	
McGregor, IA	ST. PAUL DISTRICT	75,000	Continue Design
Pool 8 Phase III, Stg II, WI	ST. PAUL DISTRICT	200,000	Complete Construction
Pool 8 Phase III A, WI	ST. PAUL DISTRICT	1,000,000	Initiate Construction
Pool 8 Phase III B, WI	ST. PAUL DISTRICT	1,165,000	Initiate Construction
Zumbro River, WI	ST. PAUL DISTRICT	50,000	Continue Design
Regional Project Sequencing		50,000	
Habitat Evaluation/Monitoring		750,000	
Public Involvement		60,000	
Long Term Resource Monitoring		5,000,000	
Report to Congress		100,000	
Program Management		758,000	
TOTAL		16,470,000	

FISCAL YEAR 2011: The requested amount will be used to continue projects under way in FY 2010, initiate one new construction phase, and to continue monitoring and other restoration-related activities, as follows:

PROJECT	DISTRICT	AMOUNT	STATUS
Batchtown Mgmt Area III, IL	ST. LOUIS DISTRICT	100,000	Finalize Construction Contract
Pool 24 Islands, MO	ST. LOUIS DISTRICT	75,000	Continue Design
Pool 25 and 26, MO	ST. LOUIS DISTRICT	450,000	Continue Construction
Rip Rap Landing, IL	ST. LOUIS DISTRICT	175,000	Continue Design
Swan Lake, IL	ST. LOUIS DISTRICT	100,000	Finalize Construction Contract
Ted Shanks, MO	ST. LOUIS DISTRICT	2,725,000	Continue Construction
Wilkinson Island, IL	ST. LOUIS DISTRICT	150,000	Continue Design
Beaver Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Fox Island	ROCK ISLAND DISTRICT	100,000	Continue Construction
Huron Island, IA	ROCK ISLAND DISTRICT	150,000	Continue Design
Boston Bay, IL	ROCK ISLAND DISTRICT	50,000	Initiate Planning
Rice Lake, IL	ROCK ISLAND DISTRICT	3,500,000	Continue Construction
Pool 12, IL	ROCK ISLAND DISTRICT	200,000	Continue Design
Pool 12, IL	ROCK ISLAND DISTRICT	450,000	Initiate Construction
Lake Odessa, IA	ROCK ISLAND DISTRICT	75,000	Complete Construction
Capoli Slough, WI	ST. PAUL DISTRICT	1,442,000	Continue Construction
Conway Lake, IA	ST. PAUL DISTRICT	100,000	Continue Design
Harpers Slough, IA	ST. PAUL DISTRICT	100,000	Continue Design
Lake Winneshiek, WI	ST. PAUL DISTRICT	75,000	Continue Design
McGregor, IA	ST. PAUL DISTRICT	75,000	Continue Design
Pool 8 Phase III A, WI	ST. PAUL DISTRICT	1,000,000	Continue Construction
Pool 8 Phase III B, WI	ST. PAUL DISTRICT	1,100,000	Continue Construction
Zumbro River, WI	ST. PAUL DISTRICT	50,000	Continue Design
Regional Project Sequencing		100,000	
Habitat Evaluation/Monitoring		1,000,000	
Public Involvement		60,000	
Long Term Resource Monitoring		6,640,000	
Program Management		958,000	
TOTAL		21,150,000	

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and amended by Section 107(b) of the Water Resources Development Act of 1999, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 25 percent of the first costs allocated to fish and wildlife enhancement for the following projects:		
Baldwin Backwater, IL	$ 624,000	
Banner Marsh, IL	1,780,000	
Batchtown, IL	146,000	
Blackhawk Park, WI	77,000	
Bussey Lake, IA	162,000	
Cuivre Island, MO	498,000	
Osborne Channel, IL	190,000	
Peoria Lake, IL	42,000	
Princeton, IA	54,000	
Swan Lake, IL	262,000	
Subtotal	$ 3,835,000	$ 0
Pay 35 percent of the first costs allocated to fish and wildlife enhancement for the following projects:		
Ambrough Slough, WI	$ 166,000	
Pool Slough, IA, MN	175,000	
Rice Lake, IL	3,378,000	
Smith Creek, IA	300,000	
Kaskaskia Oxbow	350,000	
Subtotal	$ 4,369,000	$ 0
Pay 50 percent of the first costs allocated to recreation projects.	0 [1]	
Total Non-Federal Construction Costs	$ 8,204,000	$ 0

[1] No recreation projects scheduled.

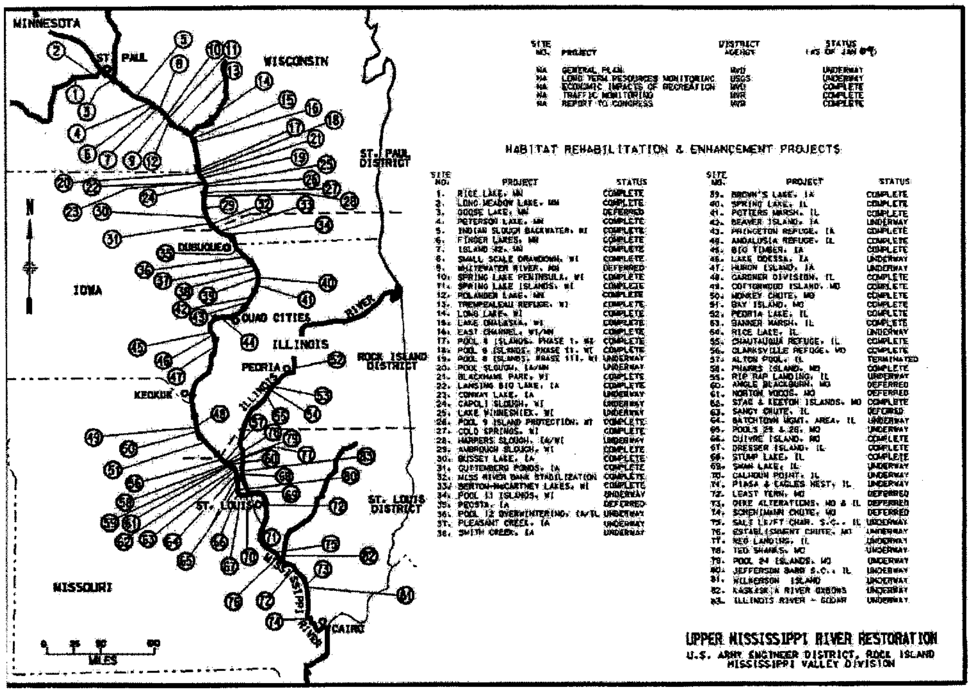
The non-Federal sponsors have agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement is required only for projects that are not located on lands managed as a national wildlife refuge.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $766,195,000 is the same as the latest estimate presented to Congress (FY 2009).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: National Environmental Policy Act compliance is accomplished prior to implementation of each individual project.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1985. The Water Resources Development Act of 1999, P.L. 106-53, amends the previous authority to increase annual appropriation limits available to the project; requires submission of a report to Congress on a 6 year cycle which began in December 2004 to evaluate projects, accomplishments, systemic habitat needs, and identifies any needed changes to the project authorization; and authorizes an independent technical review committee through FY 2009. Program received $7,000,000 in Supplemental Appropriations in FY 2008 due to flood damages at Odessa Habitat site. $13,179,000 of American Recovery and Reinvestment Act funds were appropriated to the program.



SITE NO.	PROJECT	DISTRICT AGENCY	STATUS (AS OF JAN 89)
NA	GENERAL PLAN	MVD	UNDERWAY
NA	LONG TERM RESOURCES MONITORING	USGS	UNDERWAY
NA	ECONOMIC IMPACTS OF RECREATION	MVD	COMPLETE
NA	TRAFFIC MONITORING	MVR	COMPLETE
NA	REPORT TO CONGRESS	MVR	COMPLETE

HABITAT REHABILITATION & ENHANCEMENT PROJECTS

SITE NO.	PROJECT	STATUS
1.	RICE LAKE, MN	COMPLETE
2.	LONG MEADOW LAKE, MN	COMPLETE
3.	GOOSE LAKE, MN	DEFERRED
4.	PETERSON LAKE, MN	COMPLETE
5.	INDIAN SLOUGH BACKWATER, WI	COMPLETE
6.	FINGER LAKES, MN	COMPLETE
7.	ISLAND 42, MN	COMPLETE
8.	SMALL SCALE DRAWDOWN, WI	COMPLETE
9.	WHITEWATER RIVER, MN	DEFERRED
10.	SPRING LAKE PENINSULA, WI	COMPLETE
11.	SPRING LAKE ISLANDS, WI	COMPLETE
12.	POLANDER LAKE, MN	COMPLETE
13.	TREMPEALEAU REFUGE, WI	COMPLETE
14.	LONG LAKE, WI	COMPLETE
15.	LAKE ONALASKA, WI	COMPLETE
16.	EAST CHANNEL, WI/MN	COMPLETE
17.	POOL 8 ISLANDS, PHASE I, WI	COMPLETE
18.	POOL 8 ISLANDS, PHASE II, WI	COMPLETE
19.	POOL 8 ISLANDS, PHASE III, WI	UNDERWAY
20.	POOL SLOUGH, IA/MN	UNDERWAY
21.	BLACKHAWK PARK, WI	COMPLETE
22.	LANSING BIG LAKE, IA	COMPLETE
23.	CONWAY LAKE, IA	UNDERWAY
24.	CAPOLI SLOUGH, WI	UNDERWAY
25.	LAKE WINNESHIEK, WI	UNDERWAY
26.	POOL 9 ISLAND PROTECTION, WI	COMPLETE
27.	COLD SPRINGS, WI	COMPLETE
28.	HARPERS SLOUGH, IA/WI	UNDERWAY
29.	AMBROUGH SLOUGH, WI	COMPLETE
30.	BUSSEY LAKE, IA	COMPLETE
31.	GUTTENBERG PONDS, IA	COMPLETE
32.	MISS RIVER BANK STABILIZATION	COMPLETE
33.	BERTOM-McCARTNEY LAKES, WI	COMPLETE
34.	POOL 11 ISLANDS, WI	UNDERWAY
35.	PEOSTA, IA	DEFERRED
36.	POOL 12 OVERWINTERING, IA/IL	UNDERWAY
37.	PLEASANT CREEK, IA	UNDERWAY
38.	SMITH CREEK, IA	UNDERWAY
39.	BROWN'S LAKE, IA	COMPLETE
40.	SPRING LAKE, IL	COMPLETE
41.	POTTERS MARSH, IL	COMPLETE
42.	BEAVER ISLAND, IA	UNDERWAY
43.	PRINCETON REFUGE, IA	COMPLETE
44.	ANDALUSIA REFUGE, IL	COMPLETE
45.	BIG TIMBER, IA	COMPLETE
46.	LAKE ODESSA, IA	UNDERWAY
47.	HURON ISLAND, IA	UNDERWAY
48.	GARDNER DIVISION, IL	COMPLETE
49.	COTTONWOOD ISLAND, MO	COMPLETE
50.	MONKEY CHUTE, MO	COMPLETE
51.	BAY ISLAND, MO	COMPLETE
52.	PEORIA LAKE, IL	COMPLETE
53.	BANNER MARSH, IL	COMPLETE
54.	RICE LAKE, IL	UNDERWAY
55.	CHAUTAUQUA REFUGE, IL	COMPLETE
56.	CLARKSVILLE REFUGE, MO	COMPLETE
57.	ALTON POOL, IL	TERMINATED
58.	PHARRS ISLAND, MO	COMPLETE
59.	RIP RAP LANDING, IL	UNDERWAY
60.	ANGLE BLACKBURN, MO	DEFERRED
61.	NORTON WOODS, MO	DEFERRED
62.	STAG & KEETON ISLANDS, MO	COMPLETE
63.	SANDY CHUTE, IL	DEFERRED
64.	BATCHTOWN MGMT. AREA, IL	UNDERWAY
65.	POOLS 25 & 26, MO	UNDERWAY
66.	CUIVRE ISLAND, MO	COMPLETE
67.	DRESSER ISLAND, IL	COMPLETE
68.	STUMP LAKE, IL	COMPLETE
69.	SWAN LAKE, IL	UNDERWAY
70.	CALHOUN POINT, IL	UNDERWAY
71.	PIASA & EAGLES NEST, IL	UNDERWAY
72.	LEAST TERN, MO	DEFERRED
73.	DIKE ALTERATIONS, MO & IL	DEFERRED
74.	SCHENIMANN CHUTE, MO	DEFERRED
75.	SALT LK/FT CHAR. S.C., IL	UNDERWAY
76.	ESTABLISHMENT CHUTE, MO	UNDERWAY
77.	RED LANDING, IL	UNDERWAY
78.	TED SHANKS, MO	UNDERWAY
79.	POOL 24 ISLANDS, MO	UNDERWAY
80.	JEFFERSON BARR S.C., IL	UNDERWAY
81.	WILKERSON ISLAND	UNDERWAY
82.	KASKASKIA RIVER OXBOWS	UNDERWAY
83.	ILLINOIS RIVER - SCDAR	UNDERWAY

UPPER MISSISSIPPI RIVER RESTORATION

U.S. ARMY ENGINEER DISTRICT, ROCK ISLAND
MISSISSIPPI VALLEY DIVISION

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atchafalaya River and Bayous Chene, Boeuf and Black, LA

AUTHORIZATION: River and Harbor Act of 3 July 1968, 13 Aug 1068, Sec 101

LOCATION AND DESCRIPTION: The project is located in south central Louisiana. It provides for a 20-foot deep by 400-foot wide navigation channel.

CONFERENCE AMOUNT FOR FY2010: $11,062,000
BUDGET FOR FY2011: **M**: $705,000 **O**: $8,025,000 **T**: $8,730,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 8,730,000 - Funds will be used to dredge the Atchafalaya River Horseshoe Bend and the portion of the authorized channel in the Atchafalaya Bay. Perform channel condition survey of the entire project and routine operation and maintenance. Coordinate and prepare environmental compliance consistency, continue monitoring the effectiveness of Value Engineering Study alternatives to improve navigation and to alleviate unconsolidated fluid mud in the bar channel. Perform engineering and design, surveys, specification review, cost estimating for award of dredging contracts. Continue work on the Dredged Material Management Plan (DMMP).

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barataria Bay Waterway, LA

AUTHORIZATION: River and Harbor Act 2 March 1919

LOCATION AND DESCRIPTION: The project is located in southeast Louisiana. The navigation channel is 12 feet deep by 125 feet wide for 36.9 miles in the inland and bay channel reaches, and 15 feet deep by 250 feet wide for the 3.1 mile bar channel.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $157,000
BUDGET FOR FY 2011: **M**: $0 **O**: $135,000 **T**: $135,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 135,000 - Funds will be used for hydrographic surveys, preparation for Environmental Assessments for wetland development/restoration sites, collect and disseminate data from water level gauges, change benchmarks and reset gauges from NGVD to NAVD, provide right-of-entry for dredged material disposal areas and reduce encroachments.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Bodcau Reservoir, Louisiana

AUTHORIZATION: Flood Control Act (FCA) of 28 June 1938, H.D. 378, 74 Congress 2d Session, FCA 22 June 1936, modified by Act of 28 June 1939

LOCATION AND DESCRIPTION: Bodcau Bayou Dam and Reservoir is a single purpose flood control reservoir located on Bayou Bodcau, a tributary of the Red River. Recreation and natural resource stewardship are important secondary uses of project lands at Bodcau.

RECOVERY ACT ALLOCATIONS TO DATE: $2,110,000
CONFERENCE FOR FY 2010: **T**: $907,000
BUDGET FOR FY 2011: **M**: $69,000 **O**: $1,003,000 **T**: $1,072,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A.

FDR: $504,000 - Funding provides for routine operation and maintenance of dam operations, dam safety data gathering, water control/quality analysis and collection and real estate management.

Rec: $377,000 - Provides for operation and maintenance of recreation areas including re-opening parks.

Hydro: N/A.

ES: $191,000 - Provides conservation and protection of soil, water, wetland, vegetation, waterfowl, fish and state and federal endangered and threatened species of approximately 33,000 acres.

WS: N/A.

OTHER INFORMATION: Bayou Bodcau Dam has recently been classified as DSAC III as part of the Corps-wide dam safety initiative. Guidance indicates that the dam must be remediated to DSAC IV prior to any modifications being made to the dam or its functions that increase risk. A study is currently underway (Bossier Parish) that will address repairs as part of the study's recommended plan.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Lafourche and Lafourche Jump Waterway, LA

AUTHORIZATION: River and Harbor Act 30 August 1935 and 14 July 1960

LOCATION AND DESCRIPTION: The project is located in Southeast Louisiana in Lafourche Parish. Bayou Lafourche is a 36.3-mile navigation channel in Lafourche Parish from LaRose, Louisiana, to Belle Pass in the Gulf of Mexico. Channel dimensions are 6 feet deep by 60 feet wide from Mile 35 to Mile 21.9, 9 feet deep by 100 feet wide from Mile 21.9 to Mile 13.0, 12 feet deep by 125 feet wide from Mile 13.0 to Mile 3.4, 24 feet deep by 300 feet wide from Mile 3.4 to Mile 0.0 (Port Fourchon Reach), and 26 feet deep by 300 feet wide from Mile 0.0 to Mile (-1.3) (Belle Pass).

RECOVERY ACT ALLOCATIONS TO DATE: $3,150,000
CONFERENCE AMOUNT FOR FY 2010: $1,151,000
BUDGET FOR FY 2011: **M**: $928,000 **O**: $95,000 **T**: $1,023,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 1,023,000 - Funds will be used for dredging the bar channel, hydrographic surveys, preparation for Environmental Assessments for wetland development/restoration sites, collect and disseminate data from water level gauges, change benchmarks and reset gauges from NGVD to NAVD, provide right-of-entry to dredged material disposal areas and reduce encroachments.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Pierre, LA

AUTHORIZATION: Flood Control Act 1946.

LOCATION AND DESCRIPTION: The project provides for flood control by channel improvement and enlargement of Ockley Drive Ditch and segments of Bayou Pierre in the vicinity of Shreveport, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: **T**: $24,000
BUDGET FOR FY 2011: **M**: $24,000 **O**: $0 **T:** $24,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A.

FDR: $24,000 - Provides for routine operation and maintenance for flood damage reduction.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Segnette Waterway, LA

AUTHORIZATION: River and Harbor Act 3 Sept 1954

LOCATION AND DESCRIPTION: The project is located in Southeast Louisiana in Jefferson Parish - a 12.2-mile navigation channel from Westwego, Louisiana, to the Gulf Intracoastal Waterway. Channel dimensions of 6-feet deep by 60-feet wide for entire 12.2 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $ 49,000
BUDGET FOR FY 2011: **M**: $ 0 **O**: $ 37,000 **T**: $ 37,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 37,000 - Funds will be used for hydrographic surveys, preparation of Environmental Assessments for wetland development/restoration sites, provide right-of-entry for dredged material disposal areas, reduce encroachments, and ensure compliance of outgrant/consent program.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche, LA

AUTHORIZATION: River and Harbor Act 26 June 1934 and prior RHA's

LOCATION AND DESCRIPTION: The project is located in south central Louisiana in St. Mary Parish. The project is primarily a shallow draft navigation project but has some flood control features in it such as the Calumet Floodgates and Keystone Lock & Dam.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $190,000
BUDGET FOR FY 2011: **M**: $0 **O**: $150,000 **T**: $150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $150,000 - Funds will be used to operate Keystone Lock.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bayou Teche & Vermilion River, LA

AUTHORIZATION: FCA of 18 August 1941. Reclassified as an "Operations and Maintenance, General" project under the category "Navigation" by authority of the Office, Chief of Engineers, in 1st endorsement, 23 April 1956, on letter of the Division Engineer, U.S. Army Engineer Division, Lower Mississippi Valley, 6 March 1956, subject, "Classification of the Mermentau River and Bayou Teche and Vermilion River, Operation and Maintenance, General Projects".

LOCATION AND DESCRIPTION: The project is located in southwest Louisiana. The project is a multi-purpose project providing navigation and flood control to several parishes in southwest Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $15,000
BUDGET FOR FY 2011: **M**: $ 0 **O**: $ 11,000 **T**: $ 11,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 11,000 - Funds will be used to perform hydrographic surveys and change vertical datum from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bigstone Lake - Whetstone River, MN and SD

AUTHORIZATION: FCA 1965; RHA 1965

LOCATION AND DESCRIPTION: On Minnesota River near Ortonville and Odessa, MN and Big Stone City, SD, at the outlet of Big Stone Lake and in Big Stone and Lac qui Parle Counties, MN, and Grant County, SD. The 1965 Flood Control Act authorized improvements for wildlife conservation and development, flood control, and recreation. The plan provided for a dam on the Minnesota River near Odessa, Minnesota, which has created a conservation pool of 2,800 acres for wildlife purposes. Upstream improvements include construction of bank protection and related work along the lower 6-mile reach of Whetstone River in South Dakota, modification of the existing dam and silt barrier at the outlet of Big Stone Lake, and channel improvement on the Minnesota River for 3 miles below the outlet control dam.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: **T**: $262,000
BUDGET FOR FY 2011: **M**: $0 **O**: $251,000 **T**: $251,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $237,000 – Required to operate, maintain, monitor dam and complete water control data collection and analysis activities to meet minimum requirements for dam safety and provide design operation.

Rec: N/A

Hydro: N/A

ES: $14,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blakely Mountain Dam, Lake Ouachita, Arkansas

AUTHORIZATION: Flood Control Act 1944, Section 10.

LOCATION AND DESCRIPTION: Blakely Mountain Dam/Lake Ouachita is located on the Ouachita River in Garland and Montgomery Counties, Arkansas, west of Hot Springs, Arkansas. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 2,768,000 acre-feet. The power plant has a generating capacity of 75,000 kilowatts. Twenty campgrounds and recreation areas are located on the project. Annual public visitation to the project is 4,500,000.

RECOVERY ACT ALLOCATIONS TO DATE: $954,000
CONFERENCE FOR FY 2010: **T**: $6,743,000
BUDGET FOR FY 2011: **M**: $2,768,000 **O**: $5,684,000 **T**: $8,452,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A.

FDR: $1,113,000 - Provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: $2,896,000 - Provides routine operation and maintenance of recreation facilities.

Hydro: $4,338,000 - Provides for routine operation and maintenance of the hydropower facilities and rehabilitation of the power tunnel.

ES: $105,000 - Provides for monitoring and surveying wildlife and other organisms listed as threatened or endangered, monitoring culturally significant sites for disturbances, taking protective measures for prevent disturbances, and investigating and reporting disturbances, forest management activities and monitoring exotic species infestations in Lake Ouachita and updating Lake Ouachita Master Plan.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caddo Lake, Louisiana

AUTHORIZATION: Flood Control Act of 27 October 1965, S.D. 39, 89th Congress, 1st Session, PL 89-298, WRDA 1976, PL 94-587, 22 October 1976.

LOCATION AND DESCRIPTION: Caddo Lake is located in Caddo Parish, Louisiana, about 19 miles northwest of Shreveport, Louisiana, just upstream of the confluence of Black and Twelvemile Bayous.

RECOVERY ACT ALLOCATIONS TO DATE: $26,000
CONFERENCE FOR FY 2010: **T:** $213,000
BUDGET FOR FY 2011: **M:** $0 **O:** $222,000 **T:** $222,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A.

FDR: $162,000 - Provides for routine operation and maintenance for flood damage reduction.

Rec: $60,000 - Provides for routine operation and maintenance of recreation facilities.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Calcasieu River and Pass, LA

AUTHORIZATION: River and Harbor Act of 24 July 1946, as amended, CH 594-PL525

LOCATION AND DESCRIPTION: The 68-mile channel is located in southwest Louisiana and extends from the Gulf of Mexico to Lake Charles, Louisiana. The project is authorized at 40x400 feet inland and 42x800 feet in the bar channel.

RECOVERY ACT ALLOCATIONS TO DATE: $13,840,000
CONFERENCE AMOUNT FOR FY 2010: $19,888,000
BUDGET FOR FY 2011: **M**: $12,948,000 **O**: $1,547,000 **T**: $14,495,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 14,495,000 - Funds will be used for dredging, maintenance of existing combined upland dredged material disposal areas, dewatering/maintenance and painting of tainter gates of the Saltwater Barrier, operate and maintain the Saltwater Barrier Control Structure, perform hydrographic surveys, right-of-entry for dredged material disposal areas, reduce encroachments, gather engineering data necessary for monitoring the stability of the Calcasieu River Saltwater Barrier, and change vertical datum from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Carlyle Lake, Illinois

AUTHORIZATION: FCA 1938, 1944, and 1958.

LOCATION AND DESCRIPTION: The project, completed in 1967, is located on Kaskaskia River, approximately 107 miles above its mouth, near community of Carlyle, Illinois. Portions of the project are situated in Clinton, Fayette, Bond, and Marion Counties. Carlyle Lake is the largest man-made lake in Illinois, with over 26,000 acres of water and 11,000 acres of public land. Lake provides flood control, water quality control and water supply to nearby communities; recreation; and fish and wildlife conservation. It is authorized to augment navigation flows downstream on the Kaskaskia River.

RECOVERY ACT ALLOCATIONS TO DATE: $27,743,000
CONFERENCE AMOUNT FOR FY2010: **T:** $4,914,000
BUDGET FOR FY2011: **M:** $2,009,000 **O:** $3,634,000 **T:** $5,643,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FDR: $2,286,000 - Routine operation and maintenance (O&M) for flood damage reduction (FDR); critical dam maintenance, dam safety, water control and Real Estate costs for compliance management. Operate and maintain FDR features ensuring operational availability of critical FDR infrastructure and for mandatory Periodic Assessment to include new HQ requirements for Potential Failure Mode Analysis and Risk Analysis.

Rec: $2,807,000 - Routine O&M of recreation areas, facilities and programs, public health and safety, law enforcement agreements, use fees collection, and visitor center operations. Funds will be leveraged to maximize benefits regionally and nationally.

Hydro: N/A

ES: $498,000 - Routine operation and maintenance of environmental stewardship program and features; environmental compliance, control of invasive species, cultural and natural resource protection, environmental stewardship on 37,543 acres of fee lands and waters, with 75 miles of boundary.

WS: $52,000 - Annual recurring operation and maintenance costs associated with water supply. Funding will ensure availability of water supply meeting contract requirements.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Caruthersville Harbor, MO

AUTHORIZATION: River and Harbor Act 1960, Section 107, as amended.

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 853.0) at Caruthersville, in Pemiscot County, MO. This is a slack-water harbor used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 150 feet wide by 3,500 feet long with a 300-foot radius turning basin at the upper end. The local interest is the Pemiscot County Port Authority.

RECOVERY ACT ALLOCATIONS TO DATE: $1,190,000
CONFERENCE FOR FY 2010: **T**: $482,000
BUDGET FOR FY 2011: **M**: $0 **O**: $13,000 **T**: $13,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $13,000 - Provides for performance of minimal surveys. These funds would allow for determination of current harbor conditions for navigation which are provided to local interest.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Claiborne County Port, Mississippi

AUTHORIZATION: River and Harbor Act 1960, Section 107 (PL 86-645).

LOCATION AND DESCRIPTION: Claiborne County Port is a slack-water, shallow draft harbor, located along the Mississippi River. This project's purpose is to provide a transportation need for water-oriented industry in Claiborne County, Mississippi.

RECOVERY ACT ALLOCATIONS TO DATE: $59,000
CONFERENCE FOR FY 2010: T: $74,000
BUDGET FOR FY 2011: M: $0 **O**: $1,000 **T**: $1,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,000 - Provides for surveys for maintenance dredging to maintain the 9-foot draft channel which ensures harbor is open during low water periods.

FDR: N/A.

Rec: N/A.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Without maintenance dredging funds, this port will lose project dimensions, requiring the port to be shut down during the busiest time of the year when harvested crops and timber are shipped via Claiborne County Port. This port services many small communities and farmers in Mississippi. The project was constructed in 1982. The loss of navigation could have significant adverse economic impacts on the region.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Clarence Cannon Dam and Mark Twain Lake, Missouri

AUTHORIZATION: FCA 1938 and 1962.

LOCATION AND DESCRIPTION: The project is located on the Salt River at Mile 63 above its confluence with the Mississippi River. This multi-purpose project provides flood damage reduction, hydropower, water supply, navigation storage, pollution abatement, fish and wildlife conservation, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: $6,458,000
CONFERENCE AMOUNT FOR FY2010: **T:** $6,475,000
BUDGET FOR FY2011: **M:** $3,256,000 **O:** $4,585,000 **T:** $7,841,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $2,000 - Minimal annual recurring operations and maintenance activities associated with the re-regulation downstream channel, dam, reservoir, administration and shop buildings to assure availability of critical infrastructure and structural safety.

FDR: $2,796,000 - Routine operations and maintenance for flood damage reduction (FDR); critical dam maintenance, FDR operations, dam safety, water control and RE cost for compliance management. Operate and maintain FDR features ensuring operational availability of critical FDR infrastructure. Improve performance by increasing availability and reliability of dam and structures.

Rec: $2,758,000 - Routine operations and maintenance of recreation areas, facilities and programs; operations and minor maintenance of recreation facilities, visitor assistance, public health and safety, law enforcement agreements, public access, use fees collection, visitor center operations.

Hydro: $1,549,000 - Routine operations and maintenance cost for remote operation of 58 megawatts. Funding will ensure meeting Southwestern Power Administration contract requirements. Sustain hydropower performance by increasing availability and reliability of generating units.

ES: $620,000 - Routine operations and maintenance of environmental stewardship program and features; environmental compliance, control of invasive species, Federally-listed threatened and endangered species, cultural and natural resource protection, environmental stewardship. Meet minimum environmental stewardship responsibilities.

WS: $116,000 - Annual recurring operations and maintenance cost and water supply agreement associated with water supply. Funding will help ensure availability of water supply meeting contract requirements.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coralville Lake, Iowa

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Coralville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located on the Iowa River just upstream of Iowa City. Conservation pool is 4,900 acres; and the flood control pool is 24,800 acres with 475,000 acre-feet of storage. Cumulative damages prevented since project's inception (1958) = $135,295,000. The project includes 24,591 acres of fee title lands and there are 14 recreation area sites.

RECOVERY ACT ALLOCATIONS TO DATE: $934,000
CONFERENCE FOR FY 2010: **T**: $ 3,213,000
BUDGET FOR FY 2011: **M:** $1,409,000 **O:** $3,150,000 **T**: $4,559,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,778,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for a Design Report of the Amana Remedial Levee.

Rec: $1,302,000 – Routine operation and maintenance of 14 recreation areas.

Hydro: N/A

ES: $479,000 – Routine operations and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, and continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: DeGray Lake, Arkansas

AUTHORIZATION: River and Harbor Act 1950, Section 101 and Water Supply Act of 1958, as amended by Federal Water Pollution Control Act of 1961.

LOCATION AND DESCRIPTION: DeGray Lake is located on the Caddo River in Clark and Hot Spring Counties, AR, northwest of Arkadelphia, AR. The project consists of an earth-fill dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 495,100 acre-feet. The power plant has a generating capacity of 68,000 kilowatts. There is a re-regulating pool below the main dam for water supply storage and pumped-storage power generation. Eighteen campgrounds and recreation areas are located on the project. Annual public visitation to the project is approximately 3,000,000.

RECOVERY ACT ALLOCATIONS TO DATE: $6,918,000
CONFERENCE FOR FY 2010: **T**: $6,743,000
BUDGET FOR FY 2011: **M**: $2,536,000 **O**: $4,443,000 **T**: $6,979,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $43,000 - Provides for water control data gathering and evaluation.

FDR: $672,000 - Provides for provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: $3,324,000 - Provides routine operation and maintenance of recreation facilities.

Hydro: $ 2,361,000 - Provides for routine operation and maintenance of the hydropower facilities.

ES: $579,000 - Provides for management of cultural and natural resources from further degradation. This includes boundary surveillance for encroachments, outgrant and land use request evaluations, surveillance of lands and waters to monitor and control invasive species such as hydrilla and the gypsy moth, selective timber thinning, prescribed burning activities and the creation of fish and wildlife habitat.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Eau Galle River Lake, WI

AUTHORIZATION: FCAs of 1944 and 1958; Fish and Wildlife Coordination Act of 1958; RHA 1958; Water Supply Act of 1958

LOCATION AND DESCRIPTION: At and in vicinity of Spring Valley, WI, on Eau Galle River 30 miles above its mouth at Chippewa River, and it tributary, Mines Creek, which flows through the village. Spring Valley is about 45 miles east of St. Paul, MN, and 36 miles west of Eau Claire, WI.

The improvement under the authorization provided for a retarding reservoir and dam, including an uncontrolled spillway, on the Eau Galle River immediately upstream from Spring Valley with a discharge channel downstream from the dam, and remedial work on Mines Creek consisting of channel enlargement, low levees, and drop structures to reduce velocities prior to discharge into the Eau Galle River.

RECOVERY ACT ALLOCATIONS TO DATE: $297,000
CONFERENCE FOR FY 2010: **T**: $844,000
BUDGET FOR FY 2011: **M**: $45,000 **O**: $684,000 **T**: $729,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $399,000 – Operate, maintain, monitor dam and complete water control data collection and analysis to meet minimum requirements for dam safety and provide design operation. Complete real estate compliance inspections, environment compliance (ERGO), and scheduled Periodic Inspection.

Rec: $307,000 - Routine operation and maintenance of recreation facilities including execution of directed recreation programs, i.e. water safety, visitor assistance, fee program, etc.

Hydro: N/A

ES: $23,000 - Conduct operations and operational maintenance tasks required to complete environmental stewardship mission. This includes implementation of operational management plan recommendations for basic natural resource operational functions including conservation and protection of soil, water, wetland, forest, and vegetation.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Elvis Stahr (Hickman) Harbor, KY

AUTHORIZATION: River and Harbor Act of 1960, Sec. 107; WRDA 1988, Sec. 53(b)

LOCATION AND DESCRIPTION: This slack-water harbor is located near Hickman, Kentucky, in Fulton County and is used primarily for the export of agricultural products. The project provides for maintenance of an off-river harbor channel extending from the main channel (mile 922.0) of the Mississippi River along the city front to a point about 0.3 miles below the junction of Obion Creek and Bayou Du Chien. The approved channel dimensions are 9 feet deep, 250 feet wide and 5,800 feet long, with a 500 X 600 foot turning basin at its upstream end. The local interest is the city of Hickman, KY.

RECOVERY ACT ALLOCATIONS TO DATE: $2,835,000
CONFERENCE FOR FY 2010: **T**: $40,000
BUDGET FOR FY 2011: **M**: $0 **O**: $16,000 **T**: $16,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $16,000 - Provides for performance of minimal surveys. These funds would allow for determination of current harbor conditions for navigation.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Farm Creek Reservoirs, Illinois

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project includes two dry reservoirs (Fondulac and Farmdale) located on tributary streams to the Illinois Waterway upstream of Peoria, Illinois, providing flood control for East Peoria, Illinois.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: **T**: $ 335,000
BUDGET FOR FY 2011: **M:** $331,000 **O:** $67,000 **T**: $398,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $398,000 – Routine maintenance of two dry reservoirs upstream of Peoria, Illinois. Funds would also provide for a Concrete Condition Survey to be performed.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Freshwater Bayou, LA

AUTHORIZATION: River and Harbor Act of 14 July 1960, Sec 101

LOCATION AND DESCRIPTION: The project is located in south central Louisiana. Provides for a navigation channel of 12' x 125' from the GIWW at Mile 161.2 west of Harvey Lock to the Gulf of Mexico through Freshwater Bayou, with increased width to 250 feet in the Gulf approach and a lock near the Gulf of Mexico 84 feet wide by 600 feet long and 16 feet deep. The project services the offshore petroleum industry supply boats and the commercial fishing industry.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,124,000
BUDGET FOR FY 2011: **M:** $ 10,000 **O:** $ 1,615,000 **T:** $ 1,625,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 1,625,000 - Funds will be used for operation and minor maintenance of Freshwater Bayou Lock, hydrographic surveys, gathering of engineering, change benchmarks, and reset gauges from NGVD to NAVD.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, Louisiana

AUTHORIZATION: River and Harbor Act of 14 July 1946 and prior Acts

LOCATION AND DESCRIPTION: The Gulf Intracoastal Waterway (GIWW) crosses through all five states that comprise the Gulf of Mexico coastline, connecting Brownsville, Texas in the west to St. Mark, Florida in the east. The GIWW provides a protected passage for barge traffic to move vital commodities along the Gulf Coast.

RECOVERY ACT ALLOCATIONS TO DATE: $2,864,000
CONFERENCE AMOUNT FOR FY 2010: $23,546,000
BUDGET FOR FY 2011: **M**: $ 7,236,000 **O**: $ 11,795,000 **T**: $ 19,031,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 19,031,000 - Funds will be used for dredging, hired labor maintenance on six Gulf Intracoastal Waterway locks, operating expenses for six Gulf Intracoastal Waterway locks, hydrographic surveys, and collect, manage, store and disseminate data from water level gauges.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Helena Harbor, Phillips County, AR

AUTHORIZATION: River and Harbor Act of 1960, Sec. 107, as amended

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 663.0) at Helena in Phillips County, Arkansas. This is a slack-water harbor used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 450 feet wide by 3,200 feet long. The local interest is the City of Helena, AR.

RECOVERY ACT ALLOCATIONS TO DATE: $500,000
CONFERENCE FOR FY 2010: T: $ 40,000
BUDGET FOR FY 2011: **M**: $0 **O**: $15,000 T: $15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $15,000 - Provides for performance of minimal surveys and includes labor for coordination and execution of the project. These funds would allow for the determination of current harbor conditions for navigation and maintenance requirements.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Homme Lake, ND

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: Dam is on South Branch of Park River about 4 miles upstream from Park River, ND, and 62.1 miles above the mouth of Park River. South, Middle, and North Branches, headwater streams of Park River, rise in Cavalier County in northeastern North Dakota and flow easterly to an almost common confluence near Grafton, ND, forming the main stream which flows easterly 35 miles to join Red River of the North about 35 miles south of the international boundary.

Homme Dam and Lake helps solve flood damage and water supply problems by providing limited protection from spring overflow and a dependable streamflow for water supply at Park River and Grafton. The dam is an earthfill structure 865 feet long, with a 5-foot diameter gate-controlled conduit under the dam and a concrete spillway 150 feet in length adjacent to the dam. The reservoir has a capacity of 3,650 acre-feet below spillway crest.

RECOVERY ACT ALLOCATIONS TO DATE: $6,000
CONFERENCE FOR FY 2010: **T**: $239,000
BUDGET FOR FY 2011: **M**: $0 **O**: $ 276,000 **T**: $276,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $264,000 - Required to operate, maintain, monitor dam and water control data collection and analysis activities to meet minimum dam safety requirements and provide design operations. Complete advanced instrumentation evaluation and equipment replacement; and evaluation/catalog of project datum.

Rec: N/A.

Hydro: N/A

ES: $12,000 - Protect corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Houma Navigation Canal, LA

AUTHORIZATION: River and Harbor Act of 4 Mar 1915, Sec 5

LOCATION AND DESCRIPTION: The Houma Navigation Canal is located in Terrebonne Parish, Louisiana, and extends a distance of 38 miles from the GIWW in Houma, to the Gulf of Mexico. The authorized project dimensions are 15' x 150' from the GIWW to the Bar Channel. The Bar Channel has dimensions of 18' x 300'. The waterway services the oil and gas industry and commercial fishing activities.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,441,000
BUDGET FOR FY 2011: **M**: $ 2,221,000 **O**: $ 131,000 **T**: $ 2,352,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 2,352,000 - Funds will be used for dredging, hydrographic surveys, preparation of Environmental Assessments for wetland development/restoration sites, change benchmarks and reset gauges from NGVD to NAVD. Provide right of entry for dredged material disposal areas, collect, manage, store and disseminate data from water level gauges in support of the project.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVR Portion), IL & IN

AUTHORIZATION: River and Harbor Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project includes a total of 268 river miles of 9-foot commercial navigation channel from Chicago to LaGrange Lock and Dam, near Beardstown, Illinois; with 8 locks and 7 dams. The navigable portions of this river and the locks and dams that allow waterway traffic to move from one pool to another are integral parts of a regional, national, and international transportation network. The system is significant for certain key exports and the Nation's balance of trade. Recreation facilities include a Visitor Center at Starved Rock Lock and Dam.

RECOVERY ACT ALLOCATIONS TO DATE: $10,000
CONFERENCE FOR FY 2010: **T**: $ 30,160,000
BUDGET FOR FY 2011: **M**: $12,162,000 **O:** $20,076,000 **T**: $32,238,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $31,481,000 – Funding provides for routine operations and maintenance of the lock and dams sites and the project office, critical fleet maintenance support service; dredging, water control, dredged material disposal, and dam safety. Funds would also provide for non-routine maintenance items as follows: Dresden Island L/D I-Wall Electrical Gallery Plans and Specs, Starved Rock L/D Concrete Repairs to the Upper Guidewall, Brandon Road L/D Rehabilitation Evaluation Report and Dresden Island L/D Rehabilitation Report.

FDR: N/A

Rec: $661,000 – Routine operations and maintenance of the Visitor Center at Starved Rock Lock and Dam.

Hydro: N/A

ES: $96,000 – Continue Endangered Species responsibilities from the USFWS as well as cultural/historical property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Illinois Waterway (MVS Portion), IL & IN

AUTHORIZATION: River and Harbor Acts of 1927 and 1930.

LOCATION AND DESCRIPTION: The portion of the Illinois Waterway within the boundaries of the St. Louis District extending from the mouth of the Illinois River at Grafton, Illinois, to the tail water of LaGrange Lock and Dam at mile 80.15. The project maintains a nine-foot navigation channel by dredging/ channel patrol, water management, environmental compliance, and river engineering. The project has stewardship responsibility for 16,000 acres of public lands.

RECOVERY ACT ALLOCATIONS TO DATE: $1,119,000
CONFERENCE AMOUNT FOR FY2010: **T:** $1,661,000
BUDGET FOR FY2011: **M:** $1,339,000 **O:** $463,000 **T:** $1,802,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,736,000 - Routine operations and maintenance for the lower 80 miles of navigation channel to include water management, water quality, surveys, channel patrol, and only the most critical dredging needs.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: $66,000 - Basic stewardship of 16,000 acres of land, management of outgrants, and coordination with environmental partners for conservation and restoration. Additionally, several flood damaged outgrant cabins will be removed and the land restored to public open space in coordination with Federal/State floodplain management goals. Funds will be utilized to meet minimum environmental stewardship responsibilites.

WS: N/A

OTHER INFORMATION: The Illinois Waterway accounts for approximately 50% of the commercial commodity tonnage shipped south through St. Louis Harbor. As such it is an important transportation corridor. Dredge planning and budgeting are complex due to river conditions and lack of channel training structures. The lower Illinois River project lands and waters contain important Federal and State managed wildlife areas and heavily utilized recreational features. This area includes approximately 16,000 acres of Corps-owned land, six state conservation areas, and one state park. There is high public demand for day use recreational opportunities within project boundaries.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Bennett Johnston Waterway, Louisiana

AUTHORIZATION: River and Harbor Act 1968; Water Resources Development Act 1976; Supplemental Appropriations Act of 1984; Water Resources Development Act 1986, 1988, 1990, 1992, 1996; and Energy and Water Development Act 1994.

LOCATION AND DESCRIPTION: The project is located in central and northwest Louisiana and provides for 9- by 200-foot navigation extending about 236 miles from the Mississippi River through Old River and Red River to the vicinity of Shreveport, Louisiana. Five locks and adjacent dams provide a lift of approximately 141 feet. The project also provides for realigning the banks of the Red River from the Mississippi River to Shreveport by means of dredging, cutoffs, and training works and stabilizing its banks by means of revetments, dikes, and other methods.

RECOVERY ACT ALLOCATIONS TO DATE: $5,527,000
CONFERENCE FOR FY 2010: **T**: $11,478,000
BUDGET FOR FY 2011: **M**: $1,860,000 **O**: $5,885,000 **T**: $7,745,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $6,516,000 - Provides for operation and maintenance of the lock and dams, minimal dredging, collection of data for water control and quality, inspections and real estate management.

FDR: N/A

Rec: $1,205,000 - Provides for routine operation and maintenance of recreation facilities.

Hydro: N/A.

ES: $24,000 - Provides for minimal protection and surveillance of mitigation of land and endangered species. Provides enhancement of habitat for neotropical migrant songbirds at project lock and dam sites. Activities include placement and maintenance of nesting boxes, habitat manipulation, and protection measures.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Kaskaskia River Navigation, Illinois

AUTHORIZATION: Sec 101 of River and Harbor Act 1962, Sec 321 of Water Resources Development Act (WRDA) 1996 (Public Law (PL) 104-303), which added fish and wildlife and habitat restoration as project purposes, Sec 311 of WRDA 2000 (PL 106-541), which added recreation as a project purpose.

LOCATION AND DESCRIPTION: The project is located in south-central Illinois and empties into Mississippi River 118 miles above the Ohio River. The project consists of 36-mile navigation channel; one 600–foot lock; dam; dam with gated spillway; 2,901 acres fee and easement lands; 5,593 acres of flowage easement; three barge terminals; two marinas; four major recreation areas with boat ramps; and numerous minor access points. Authorized purposes are navigation, recreation, fish and wildlife, and habitat restoration.

RECOVERY ACT ALLOCATIONS TO DATE: $18,168,000
CONFERENCE AMOUNT FOR FY2010: **T:** $2,041,000
BUDGET FOR FY2011: **M:** $600,000 **O:** $1,576,000 **T:** $2,176,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $1,830,000 - Provides routine recurring operation and maintenance activities to operate lock 24/7, the dam to maintain pool, dredging to keep channel and access to lock open, water control operations, minimun channel and sedimentation surveys and maintenance to assure availability of critical infrastruture and structural safety of the lock, dam, gated spillway and grade control structure.

FDR: N/A

Rec: $194,000 - Provides for minimal annual recurring cost for operation and maintenance of recreation facilities and visitor center, complying with environmental regulations. Limited public safety operations with cooperative law enforcement agreement and visitor assistance patrols on lands/waters of 36-mile channel during peak use periods. Funds will be leveraged to maximize benefits to region and nation.

Hydro: N/A

ES: $152,000 - Minimal recurring environmental stewardship activities that provide protection of natural resources on 2,901 acres of project lands. Contribute to legal mandates under the Endangered Species Act, National Environmental Policy Act, Fish and Wildlife Coordination Act, Clean Water Act and Migratory Bird Treaty. Meet minimum environmental stewardship responsibilities.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lac qui Parle Lakes, Minnesota River, MN

AUTHORIZATION: FCA 1936

LOCATION AND DESCRIPTION: Works covered by this project lie along Marsh Lake and Lac qui Parle and the Minnesota River between head of Marsh Lake and Granite Falls, MN. The project was substantially completed by the Works Progress Administration and transferred from the State of Minnesota to the United States in September 1950. The project includes a main dam at the outlet of Lac qui Parle Lakes designed to control the Marsh Lake Reservoir. There is also a dam and diversion channel near Watson designed to divert Chippewa River floodwaters into Lac qui Parle Reservoir. The Corps of Engineers, in order to complete the project, improved the channel from Lac qui Parle Dam to Granite Falls and modified the Lac qui Parle and Chippewa Dam structures to secure improved operation. The dams had been in operation by the State of Minnesota for several years prior to the transfer.

RECOVERY ACT ALLOCATIONS TO DATE: $135,000
CONFERENCE FOR FY 2010: **T**: $596,000
BUDGET FOR FY 2011: **M**: $58,000 **O**: $619,000 **T**: $677,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $600,000 – Required to provide dam operations, maintenance, monitoring, and water control data collection and analysis necessary to meet minimum requirements for dam safety and provide design operation. Snag and clear 43.1 miles of the Minnesota River below Lac qui Parle Dam to Granite Falls, MN as mandated by the 1936 Flood Control Act. Update Emergency Action and Reservoir Regulation Plans.

Rec: $52,000 – Routine operation and maintenance of recreation facilities; execute all directed programs, i.e. Visitor Assistance, Water Safety message delivery, etc.

Hydro: N/A

ES: $25,000 – Support program to monitor habitat conditions in critical prairie pothole region, support North American Waterfowl Management Plan agreements and coordinate reservoir operations with Minnesota DNR and U.S. Fish and Wildlife Service. Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Ashtabula and Baldhill Dam, ND

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: Baldhill Dam is on the Sheyenne River, 16 miles upstream from Valley City, ND, and about 271 miles above mouth. Sheyenne River rises in central North Dakota and flows 500 miles generally southeast to enter Red River of the North about 10 miles north of Fargo, ND.

Baldhill Dam was constructed to reduce flood damages, primarily at Valley City, and to alleviate water shortages in municipal and rural areas along the Sheyenne River and the Red River of the North. The dam was placed in operation in 1950. It is a 1,650 foot long compacted earth structure with concrete gravity control works 140 feet in length. Atop the control works are three 40 foot tainter gates. There are two 3 foot diameter conduits in the piers for low water control. The reservoir, Lake Ashtabula, has a capacity of 68,600 acre feet at normal pool level. It has prevented flood damages and improved streamflow in the Sheyenne and Red Rivers. The effectiveness of this project was demonstrated during the 1950, 1969, 1975, 1978, 1979, and 1989 floods.

RECOVERY ACT ALLOCATIONS TO DATE: $1,020,000
CONFERENCE FOR FY 2010: **T**: $1,284,000
BUDGET FOR FY 2011: **M**: $22,000 **O**: $1,402,000 **T**: $1,424,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $949,000 - Required to operate, maintain and monitor dam and to meet minimum requirements for dam safety and provide design operation. Monitor the boundaries both fee and easement. Replace critical instrumentation in the structure.

Rec: $331,000 - Routine operation and maintenance of recreation facilities. Execute directed programs including Water Safety, Rec Fee Program, Visitor Assistance, operate Visitor Center, fund Law Enforcement contract.

Hydro: N/A

ES: $144,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act. Implement Shoreline Mgt Plan for over 200 structures and noxious weed control program to comply with state law.

WS: N/A

OTHER INFORMATION: The project provides limited protection from floods downstream from the dam. It also provides sufficient water flow during dry periods to meet water supply needs of municipalities and rural areas along the Sheyenne River and the Red River downstream from the mouth of the Sheyenne River. A diversion structure and pipeline constructed by the city was used by Fargo as the principal source of water for several months during the winter of 1976-1977 when the Red River of the North went dry.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Providence Harbor, Louisiana

AUTHORIZATION: River and Harbor Act 1960

LOCATION AND DESCRIPTION: Lake Providence Harbor is an inland harbor, located along the Mississippi River in East Carroll Parish, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $423,000
CONFERENCE FOR FY 2010: **T**: $572,000
BUDGET FOR FY 2011: **M**: $0 **O**: $17,000 **T**: $17,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $17,000 – Provides for surveys for maintenance dredging to maintain the 9-foot draft channel which ensures harbor is open during low water periods.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: This project's purpose is to meet transportation needs for water-oriented industry in East Carroll Parish, Louisiana. Without maintenance dredging funds, this harbor will lose project dimensions requiring the port to be shut down during the busiest time of the year when crops are harvested and shipped. This harbor services many small communities and farmers in Louisiana. The project was constructed in 1980 and has been maintained annually. The loss of navigation will have significant adverse economic impacts on the region.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Shelbyville, Illinois

AUTHORIZATION: Flood Control Acts of 1944 and 1958

LOCATION AND DESCRIPTION: The project provides flood control, water supply, recreation, conservation of fish and wildlife, and water quality control and augments navigation flows downstream on the Kaskaskia River. The lake extends northeastward to approximately river mile 275 through Shelby, Moultrie, Douglas, and Coles Counties.

RECOVERY ACT ALLOCATIONS TO DATE: $11,842,000
CONFERENCE AMOUNT FOR FY2010: **T:** $5,183,000
BUDGET FOR FY2011: **M:** $2,175,000 **O:** $3,337,000 **T:** $5,512,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FDR: $2,085,000 - Routine operation and maintenance for flood risk management; critical dam maintenance, Flood Damage Reduction (FDR) operations, dam safety, water control and RE cost for compliance management. Operate and maintain FDR features ensuring operational availability of critical FDR infrastructure and reduce backlog maintenance. Maintain FDR features, reducing risk of dam failure and assisting in ensuring operational availability of critical infrastructure. DSAC II

Rec: $2,821,000 - Routine operation and maintenance of recreation areas, facilites and programs; operations and minor maintenace of recreation facilites, visitor assistance, public health and safety, law enforcement agreements, public access, use fees collection, visitor center operations. Funds will be leveraged to maximize benefits to the region and nation.

Hydro: N/A

ES: $554,000 - Routine operation and maintenance of environmental stewardship (ES) program and features; environmental compliance, control of invasive species, cultural and natural resource protection, ES. Funds will be utilized to meet ES responsibilities while improving Healthy and Sustainable conditions.

WS: $52,000 - Routine operation of water supply program; dam operations for water supply, reporting requirements, coordination with external and internal partners and stakeholders. Ensure availability of water supply meeting contract requirements.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Traverse, SD and MN

AUTHORIZATION: FCA 1936

LOCATION AND DESCRIPTION: Works covered by this project lie along Lake Traverse and Bois de Sioux River between the upper end of Lake Traverse at Browns Valley, MN, and the mouth of Bois de Sioux River at Breckenridge, MN. The project terminates six miles south of Breckenridge (six miles upstream of the Bois de Sioux River mouth). Lake drains through river to Red River of the North, and the two waters form a portion of the boundary between State of Minnesota and South Dakota.

The Lake Traverse and Bois de Sioux River project was completed in 1948. It provided for use of Lake Traverse as a flood control and water conservation reservoir and for channel improvement in the river below the lake. The main structure consists of a 14,500 foot earth dam and a concrete control structure at the north end of Lake Traverse near White Rock, South Dakota. A secondary control structure at Reservation Highway near Wheaton permits control of the upper section of the reservoir at a slightly higher elevation. A 5,000 foot embankment at the south end of Lake Traverse to protect Browns Valley and channel improvement for 24 miles below the main dam completed the project. The area is popular for waterfowl hunting and is used extensively for fishing, boating, swimming, and other activities. Access points, parking areas, boat landings, launching ramps and a swimming beach have been made available.

RECOVERY ACT ALLOCATIONS TO DATE: $7,000
CONFERENCE FOR FY 2010: **T**: $568,000
BUDGET FOR FY 2011: **M**: $0 **O**: $656,000 **T**: $656,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $537,000 - Required to operate, maintain, monitor dam to meet minimum requirements for dam safety and provide design operation. Complete scheduled Periodic Inspections, update Emergency Action Plans, evaluate White Rock Dam drain system, and evaluate Reservation Bladder Dam system.

Rec: $62,000 - Routine operation and maintenance of recreation facilities. Execute all directed programs, i.e. Water Safety, Visitor Assistance, etc.

Hydro: N/A

ES: $57,000 - Protect Corps owned fee land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and or environmentally induced events i.e. boundary monitoring, essential evaluation of and response to land use requests, and compensation requirements due to routine RE outgrants.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Madison Parish Port, Louisiana

AUTHORIZATION: River and Harbor Act 1960

LOCATION AND DESCRIPTION: Madison Parish Port is a fast water, shallow draft port, located on the Mississippi River in Madison Parish, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $80,000
CONFERENCE FOR FY 2010: **T**: $99,000
BUDGET FOR FY 2011: **M**: $0 **O**: $5,000 **T**: $5,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,000 - Provides for surveys for maintenance dredging to maintain the 9-foot draft channel which ensures port open during low water periods.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: This project's purpose is to meet transportation needs for water-oriented industry in Madison Parish, Louisiana. Without maintenance dredging funds, this port will lose project dimensions requiring the port to be shut down during the busiest time of the year when crops are harvested and shipped. This port services many small communities and farmers in Louisiana. The project was constructed in 1980 and has been maintained annually. The loss of navigation will have significant adverse economic impacts on the region.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mermentau River, LA

AUTHORIZATION: R&H Act of 26 June 1934 and prior Acts, Ch. 756

LOCATION AND DESCRIPTION: Mermentau River is a multi purpose project located in southwest Louisiana. Functions of the project include navigation, flood control, and prevention of saltwater intrusion. Structures on the project maintain a balance between agriculture and flood control. These structures also serve an important role to the fishing and oil industry, allowing access in and out of the Mermentau River basin.

RECOVERY ACT ALLOCATIONS TO DATE: $6,263,000
CONFERENCE AMOUNT FOR FY 2010: $1,818,000
BUDGET FOR FY 2011: **M**: $ 606,000 **O**: $ 1,402,000 **T**: $ 2,008,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 2,008,000 - Funds will be used for dewatering and major maintenance of Catfish Point Control Structure, the operation and maintenance of the Catfish Point and Schoner Bayou Control Structures, hydrographic surveys, provide right-of-entry for dredged material disposal areas, foreshore dike construction/revetment work, reduce encroachments, and gather engineering data necessary for monitoring the stability of structures.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Minnesota River, MN

AUTHORIZATION: RHAs of 1892, 1909 and 1958

LOCATION AND DESCRIPTION: Minnesota River rises in Big Stone Lake, MN and SD, and flows southeasterly about 224 miles to Mankato, MN, thence northeasterly about 106 miles to join the Mississippi River opposite St. Paul, MN. The project consists of dredging and channel maintenance to provide channel of 9-foot depth below low control pool from the mouth at the Mississippi River confluence to river mile 14.7, one-half mile above the railway bridge at Savage, MN, and 4-foot depth from river mile 14.7 to 25.6 at Shakopee, MN.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: **T**: $ 243,000
BUDGET FOR FY 2011: **M**: $192,000 **O**: $70,000 **T**: $262,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $262,000 – Continue annual navigation channel surveys and channel maintenance which includes dredging and snag removal as needed. Funding requested is sufficient to meet minimum legal responsibilities for environmental compliance, water control, and water analysis. Maintenance of channel will ensure long-term availability in a cost-effective manner.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Minnesota River, effectively the head of navigation for the Upper Mississippi River navigation project, is an essential component of the nation's transportation structure supporting commerce. This major agricultural tributary transports approximately one-fourth of the 16 million tons annually shipped in and out of the state of Minnesota. Several of the nation's largest agri-business corporations (Cargill, Cenex, and Bunge) operate terminals on the Minnesota River and depend upon a reliable navigation system for movement of their commodities. The Minnesota Department of Transportation has indicated that this has an annual economic value in excess of $362,000,000 translating to an outstanding cost benefit ratio.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River, Baton Rouge to the Gulf of Mexico, LA

AUTHORIZATION: R&H Acts of 1945, Sec 2 and 23 Oct 1962, Sec 101; SAA of 1985, PL 99-88 and WRDA of 1986, Sec 201

LOCATION AND DESCRIPTION: The project currently provides a deep draft channel between Baton Rouge and the Gulf of Mexico in Southeast Louisiana. The 45-foot deep draft channel provides access to the largest port complex in the world. The project also includes South Pass, 30 x 450 feet.

RECOVERY ACT ALLOCATIONS TO DATE: $57,805,000
CONFERENCE AMOUNT FOR FY 2010: $52,263,000
BUDGET FOR FY 2011: **M**: $57,611,000 **O**: $7,826,000 T: $62,995,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 62,995,000 - Funds will be used for dredging, jetty repairs, rock protection, hydrobook, preparation of plans and specifications, channel condition surveys, the Venice Sub-office and Harbor and disposal program.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River between Missouri River and Minneapolis (MVP Portion), MN

AUTHORIZATION: RHA of 1930 (PL 71-520) and FCA of 1944 (PL 78-534)

LOCATION AND DESCRIPTION: The St. Paul District portion of the Upper Mississippi River extends from Minneapolis, MN to Guttenberg, IA and is located in or contiguous to the States of Minnesota, Wisconsin and Iowa. The St. Paul District operates and maintains 244 miles of 9-foot channel for navigation, 13 locks and dams, and 14 commercial or small boat harbors. The project includes a Corps developed and operated recreation area at Blackhawk Park located at river mile 670 below La Crosse, WI, and natural resource management for approximately 22,000 acres above normal pool elevation.

RECOVERY ACT ALLOCATIONS TO DATE: $8,920,000
CONFERENCE FOR FY 2010: **T**: $41,938,000
BUDGET FOR FY 2011: **M**: $21,649,000 **O**: $26,777,000 **T**: $48,426,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $46,367,000 – Routine operations and maintenance activities necessary for navigation, critical fleet maintenance support service, and dredging with upland disposal. Funding requested is sufficient to meet minimum legal responsibilities for environmental compliance, water control, and water analysis. Maintenance of channel and lock and dam structures will ensure long-term availability in a cost-effective manner. Maintenance items include dredging of river channel by Dredge *Goetz* and mechanical dredging contractors; channel management structures; placement site maintenance; Reads Landing site unloading; and dewatering of locks to allow for winter maintenance activities.

FDR: N/A

Rec: $900,000 - Routine operation and maintenance of recreation facilities. Execute all directed programs, i.e. water safety, fee program, visitor assistance, etc.

Hydro: N/A

ES: $1,159,000 – Perform maintenance at various sites in 22,000-acre resource base including reforestation, island erosion control and restoration of historic dredge placement sites. Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act. Execute Shoreline Mgt Program for over 600 structures.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Between Missouri River and Minneapolis (MVR Portion), IL, IA, MO

AUTHORIZATION: River and Harbor Acts 1927 and 1930

LOCATION AND DESCRIPTION: The project consists of a 314-river-mile reach of 9-foot commercial navigation channel from Guttenberg, Iowa, downstream to Saverton, Missouri. It includes 14 locks and 11 dams (L/Ds) at 12 sites from Lock 11 to Lock 22. The navigable portions of this river and the locks and dams that allow waterway traffic to move from one pool to another are integral parts of a regional, national, and international transportation network. Recreation facilities include 25 public recreation areas and the Visitor Center located at Lock & Dam 15.

RECOVER ACT ALLOCATIONS TO DATE: $1,618,000
CONFERENCE FOR FY 2010: **T**: $ 56,220,000
BUDGET FOR FY 2011: **M**: $24,223,000 **O:** $29,469,000 **T**: $53,692,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $50,105,000 – Funding provides for routine operations and maintenance at 12 lock and dam sites and the project office, critical fleet maintenance support service; dredging, dredged material disposal, water control, periodic inspection, and dam safety. Funds would also provide for non-routine maintenance items as follows: Rehab the Bulkhead Hoist at L/D 15, Construct Bulkhead Recesses at L/Ds 17 and 18, Replace the Traveling Kevel Rail Mule and Lock Strut Arms at L/Ds 20 and 21, Repair Dam Concrete at L/D 18, and Replace Miter Gates at L/D 22.

FDR: N/A

Rec: $2,639,000 – Routine operation and maintenance of 25 public recreation areas and the Visitor Center located at Lock & Dam 15.

Hydro: N/A

ES: $948,000 – Routine operation and maintenance to reduce degradation and loss of natural resource base assuring adaptive management on the 215,000 land and water acres o the project, continue Endangered Species responsibilities from USFWS, and continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Between Missouri River and Minneapolis (MVS Portion), MN

AUTHORIZATION: Rivers and Harbors Act of 1930, as amended by Public Resolution No. 10 (1932).

LOCATION AND DESCRIPTION: Project area extends from the mouth of the Missouri River at St. Louis upstream to Lock and Dam 22 tail water, includes 105 miles of river and 70,000 acres of public lands. Project provides a nine-foot navigation channel via a system of locks and dams; regulating works; dike and revetment; dredging; environmental compliance/stewardship, and recreational opportunities.

RECOVERY ACT ALLOCATIONS TO DATE: $26,997,000
CONFERENCE AMOUNT FOR FY2010: **T:** $21,123,000
BUDGET FOR FY2011: **M:** $13,809,000 **O:** $7,772,000 **T:** $21,581,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $19,214,000 - Operate and maintain project, including operation of Locks and Dams 24, 25, and Mel Price, navigation channel maintenance. Mitigate risk and improve safety by rehabilitation of tainter gates (Mel Price Lock); replacement of lock lighting (Lock 25); rehabilitation of bulkhead crane (Mel Price); and replacement of tainter gate bulkheads (Lock 25).

FDR: N/A

Rec: $1,246,000 - Operate and maintain 46 recreational access areas, the National Great Rivers Museum, and numerous outreach/educational programs. Remove high water debris in recreational areas; construct Eagle Viewing Platform (Lock 25); construct walkway connections and shelter repairs through cost share with City of Clarksville; open Water Trail segment in Pool 26.

Hydro: N/A

ES: $1,121,000 - Basic stewardship of 70,000 acres of land, management of outgrants, and coordination with environmental partners for conservation and restoration. Additionally, flood damaged outgrant cabins and one teminated marina lease area will be restored to public open space in coordination with Federal/State floodplain management goals. Meet minimum environmental stewardship responsibilites.

WS: N/A

OTHER INFORMATION: Commercial tonnage passing through project in FY 2009 was 62,820,000 tons. Unscheduled closures can cost the regional economy up to $2,800,000 per day. An increase in environmental challenges, including forest degradation, flood damage, endangered species, side channel sedimentation, and invasive species with the Asian Carp infestation and siltation of Piasa Creek will require additional resources. Construction of the National Great Rivers Research & Education Center is scheduled for completion in FY20.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River Between the Ohio & Missouri Rivers (Reg Works), MO and IL

AUTHORIZATION: River and Harbor Acts of 1910, 1927, and 1930 as amended by the River and Harbor Acts of 1945 and 1958.

LOCATION AND DESCRIPTION: Project responsibility extends from the mouth of the Ohio River to the Missouri River at the northern boundary of the City of St. Louis including 195 miles of river and 10,000 acres of public land. Project provides nine-foot navigation channel with a lateral canal/Locks 27 at Chain of Rocks, fixed crest rock dam, channel maintenance, dredging, and environmental compliance. Project has environmental stewardship responsibility as well as land- and water-based recreational opportunities and flood damage reduction.

RECOVERY ACT ALLOCATIONS TO DATE: $7,060,000
CONFERENCE AMOUNT FOR FY2010: **T:** $22,241,000
BUDGET FOR FY2011: **M:** $22,751,000 **O:** $5,980,000 **T:** $28,731,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $25,365,000 - Operate and maintain project at acceptable levels, including operation of Locks 27, open reach dredging, surveys, channel patrol, and maintenance of dikes and revetmants. Additionally, funds will be used to mitigate risk and improve safety with the installation of bulkhead slots (Locks 27).

FDR: $384,000 - Operate and maintain 16 miles of Chain of Rocks Federal Levee at marginally acceptable risk level to include mowing, inspections, and reading of piezometers.

Rec: $365,000 - Operate and maintain six recreational access areas including maintenance of access roads. Funds will be leveraged to maximize benefits to the region and nation.

Hydro: N/A

ES: $2,617,000 - Basic stewardship of 10,000 acres of land, complex compliance requirements to include the Biological Opinion and Avoid and Minimize programs, management of outgrants, and coordination with environmental partners for conservation and restoration. Meet minimum environmental stewardship responsibilites.

WA: N/A

OTHER INFORMATION: Over 107 million tons of commodities passed through Lower River project in FY 2009. A day of unscheduled closure at Locks 27 costs the regional economy $3M. Chain of Rocks levee protects over 300,000 people and $1.4 billion in property.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mississippi River, Outlets at Venice, LA

AUTHORIZATION: River and Harbor Act of 1968, Sec 101

LOCATION AND DESCRIPTION: The project is located in southeastern Louisiana. It provides for additional outlets from the Mississippi River in the vicinity of Venice, Louisiana. Baptiste Collette and Tiger Passes are 14-feet deep by 150-feet wide channels with 16 feet deep by 250 feet bar channels.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,697,000
BUDGET FOR FY 2011: **M**: $2,081,000 **O**: $134,000 **T**: $2,215,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,215,000 - Funding will be used for dredging, repair rock jetties, hydrographic surveys, preparation for Environmental Assessments for wetland development/restoration sites, collect, manage, store and disseminate data from water level gages, change benchmarks and reset gages from NGVD to NAVD, and right-of-entry for disposal areas for dredged material.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mouth of Yazoo River, Mississippi

AUTHORIZATION: River and Harbor Act 1960

LOCATION AND DESCRIPTION: The mouth of the Yazoo River starts at the Mississippi River and continues for 9.3 miles to the junction of Old Mississippi River and Yazoo Rivers at Vicksburg, Mississippi. The channel is 150 feet wide, and a minimum operating depth of 9 feet below the lowest water of record is maintained in the channel. This project's purpose is to provide access to the Yazoo River, the Upper Vicksburg Harbor, and the Vicksburg Harbor.

RECOVERY ACT ALLOCATIONS TO DATE: $55,000
CONFERENCE FOR FY 2010: **T**: $100,000
BUDGET FOR FY 2011: **M**: $30,000 **O**: $0 **T**: $30,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $30,000 – Funding provides for channel condition surveys and maintenance dredging to maintain a 9-foot draft channel. This is a high sediment river and is controlled by the Mississippi River.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: Without maintenance dredging funds, this entrance channel will lose project dimensions requiring the Yazoo River and the Vicksburg Harbor to be shut down during the busiest time of the year when crops are harvested and shipped via Mouth of Yazoo River. This access channel services many small communities and farmers in Mississippi. The loss of project depths will have significant adverse impacts on the region due to increased shipping costs by rail and trucks. The Mat Sinking Unit and Dredge *JADWIN* anchor in the Vicksburg Harbor, their access to the Mississippi River during low water stages could be impeded.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Narrows Dam, Lake Greeson, Arkansas

AUTHORIZATION: Flood Control Act 1944.

LOCATION AND DESCRIPTION: Narrows Dam/Lake Greeson is located on the Little Missouri River in Pike County, AR, north of Murfreesboro, AR. The project consists of a concrete dam, power plant and lake for hydropower generation, flood control, recreation, water supply, and natural resources management. Storage capacity of the lake is 407,000 acre-feet. The power plant has a generating capacity of 25,500 kilowatts. There are 16 campgrounds and recreation areas on the project. Annual public visitation to the project is approximately 2,000,000.

RECOVERY ACT ALLOCATIONS TO DATE: $2,109,000
CONFERENCE FOR FY 2010: **T**: $4,816,000
BUDGET FOR FY 2011: **M**: $797,000 **O**: $4,077,000 **T**: $4,874,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,188,000 - Provides for provides for routine operation and maintenance of the dam including inspections and data collection.

Rec: $1,967,000 - Provides routine operation and maintenance of recreation facilities.

Hydro: $ 1,492,000 - Provides routine operation and maintenance of the hydropower facilities.

ES: $227,000 - Provides for management of cultural and natural resources. Enables the continuation of contracts or agreements for cultural resources surveys, testing, evaluation, analysis, or protection, and work to prevent or mitigate damage or deterioration to those characteristics or attributes that contribute to their significance. Also the participation of environmental stewardship partnership agreements with the Arkansas Game and Fish Commission, including large scale establishment of fish habitat and structure, establishment of native aquatic vegetation, and seeding of exposed shoreline during periods of low water.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Madrid Harbor, MO

AUTHORIZATION: WRDA 1992, Sec. 102(n) includes language directing the Secretary of the Army to maintain the New Madrid County Harbor in lieu of maintaining the federally constructed New Madrid Harbor.

LOCATION AND DESCRIPTION: This locally constructed harbor is located on the Mississippi River (mile 885.0), south of the city of New Madrid, in New Madrid County, Missouri. It is a slack water harbor used primarily for the export of agricultural goods. The project provides for maintenance of the navigation channel for year-round access to barge transportation for the existing facilities. The approved channel dimensions are 9 feet deep by 150 feet wide by 1,500 feet long. The local interest is the New Madrid County Port Authority.

RECOVERY ACT ALLOCATIONS TO DATE: $400,000
CONFERENCE FOR FY 2010: **T**: $ 400,000
BUDGET FOR FY 2011: **M**: $0 **O**: $210,000 **T**: $210,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $210,000 - Provides for performance of surveys and hired labor for dredging measures. These funds would allow for the determination of current harbor conditions for navigation, dredging of the harbor and limited dredging at the mouth of the harbor.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Orwell Lake, MN

AUTHORIZATION: RHA 1950; FCA 1950; FCA 1944; Fish and Wildlife Coordination Act of 1958

LOCATION AND DESCRIPTION: The Orwell Dam and Lake is located on the Otter Tail River near Fergus Falls, MN. The project was completed in 1953. It provides protection from floods during high water flows and, in conjunction with other reservoirs in the basin, provides increased flow during low water periods for water supply and pollution abatement at points in the Red River. The structure consists of an earth dam and concrete control works with a tainter gate. Most of the land, except for a part at the dam site, has been made available to the Minnesota Department of Natural Resources for wildlife conservation purposes. The area is managed for waterfowl and upland game and is open to public use for boating, fishing and other outdoor recreation.

RECOVERY ACT ALLOCATIONS TO DATE: $45,000
CONFERENCE FOR FY 2010: **T**: $507,000
BUDGET FOR FY 2011: **M**: $3,000 **O**: $459,000 **T**: $462,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $395,000 – Required to operate, maintain, monitor and complete water control data collection and analysis activities necessary meet minimum requirements for dam safety and to provide design operation. Complete scheduled Periodic Inspections, Real Estate compliance inspections and upgrade Automated Data Acquisition System in structure.

Rec: $47,000 - Routine operation and maintenance of recreation facilities. Execute all directed programs including Water Safety, Visitor Assistance, etc.

Hydro: N/A

ES: $20,000 - Protect Corps fee owned land and waters from encroachments and imminent loss of significant natural resources due to erosion, wildfire, pests, trespass, or human activity and/or environmentally induced events as necessary to meet legal and regulatory requisites of the National Environmental Policy Act.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Osceola Harbor, AR

AUTHORIZATION: River and Harbor Act of 1960, Section 107, as amended; WRDA 2007, Sec. 3010

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 785.0) at Osceola, in Mississippi County, Arkansas. This is a slack-water harbor used primarily for the export of agricultural goods. The project provides for maintenance of a navigation channel for year-round access for barge transportation. The approved channel dimensions are 9 feet deep by 250 feet wide by 6,500 feet long, with a 250-foot radius turning basin at the upstream end. The local interest is the city of Osceola, AR.

RECOVERY ACT ALLOCATIONS TO DATE: $1,876,000
CONFERENCE FOR FY 2010: **T**: $ 800,000
BUDGET FOR FY 2011: **M**: $0 **O**: $15,000 **T**: $15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $15,000 – Funding provides for performance of surveys. These funds would allow for the determination of current harbor conditions for navigation.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ouachita and Black Rivers, Arkansas and Louisiana

AUTHORIZATION: River and Harbor Act1950 as modified by River and Harbor Act 1960.

LOCATION AND DESCRIPTION: The project for navigation on the Ouachita/Black Rivers extends 366 miles from the mouth of the Black River to Camden, Arkansas, and provides for a 9- by 100-foot navigation channel. The project also includes a diversion channel through Catahoula Lake near Jonesville, Louisiana, for ecological reasons.

RECOVERY ACT ALLOCATIONS TO DATE: $6,648,000
CONFERENCE FOR FY 2010: **T**: $9,128,000
BUDGET FOR FY 2011: **M**: $2,041,000 **O**: $5,464,000 **T**: $7,505,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,773,000 - Provides operation and maintenance of project including minimal dredging, collection of data for water control and quality, inspections and real estate management.

FDR: $17,000 - Provides for real estate management of the project.

Rec: $1,631,000 - Provides routine operation and maintenance for recreation facilities.

Hydro: N/A.

ES: $84,000 - Provides minimally for natural resource management activities on the waterway including conservation and protection of soil, water, wetland, vegetation, waterfowl, fish, and wildlife.

WS: N/A.

OTHER INFORMATION: Lack of certified lock and dam stoplogs for use in dewatering and closure of lock miter gates and dam tainter gates to make repairs or inspections increases risk for loss of pool or lock closure that would shut the system down north of Felsenthal Lock & Dam in the event emergency repairs are needed. This would cause an economic impact in order to ship goods more expensively and the possible loss of jobs. H. K. Thatcher is the remaining lockwall slots requiring funds to be complete.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pearl River, Mississippi and Louisiana

AUTHORIZATION: River and Harbor Act of 1935, as modified by River and Harbor Act of 1966

LOCATION AND DESCRIPTION: The Pearl River navigation project is a navigation channel on the Pearl River that originally extended 58 miles from the mouth of the Pearl River to the mouth of Bogalusa Creek at Bogalusa, Mississippi. The project consisted of three locks and three weirs that provided a channel with minimum depth of 7 feet and a minimum bottom width of 100 feet. The project was placed in a caretaker status in 1995 and has been maintained only for maintenance and safety needs.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: **T**: $183,000
BUDGET FOR FY 2011: **M**: $12,000 **O**: $133,000 **T**: $145,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $145,000 - Funding provides for project to be maintained in caretaker status.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: An Initial Appraisal Report was prepared recommending deauthorization of the project. Locks are deteriorating and are potentially unsafe.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Red Lake Reservoir, MN

AUTHORIZATION: FCA 1944

LOCATION AND DESCRIPTION: 4.5 miles east of the west boundary of the Red Lake Indian Reservation in northwest Minnesota. The Flood Control Act of 1944 authorized improvements on the Red Lake-Clearwater River. Project features included about 27.5 miles of clearing, straightening, and enlarging of the Red Lake River channel between High Landing and a point 4.5 miles east of the west boundary of the Red Lake Indian Reservation. At that point a small concrete dam was built to restore the marshes for wildlife in the reservation between that dam and a point some three miles below the outlet of Red Lake. Also included were alterations of the 1931 existing control stop-log structure built by the Indian Service (Bureau of Indian Affairs) at the outlet of Lower Red Lake. Operation of Red Lake Dam was assumed by the Corps on 1 April 1951.

RECOVERY ACT ALLOCATIONS TO DATE: $810,000
CONFERENCE FOR FY 2010: **T**: $143,000
BUDGET FOR FY 2011: **M**: $27,000 **O**: $206,000 **T**: $233,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $199,000 – Normal routine reoccurring dam operations, maintenance, monitoring, and complete water control data collection and analysis operations necessary to meet minimum requirements for dam safety and provide design operation.

Rec: N/A

Hydro: N/A

ES: $34,000 – Maintain 15,000 acres of mitigation for Zah Gheen Marsh wetlands on the Red Lake Indian Reservation including dikes, outlets and intake structures. This work will allow the flood damage reduction project to continue meeting the goal of 70% of Corps mitigation lands achieving mitigation requirements.

WS: N/A

OTHER INFORMATION: A contract was awarded in December 2009 with ARRA funds for construction of the Red Lake Dam Fish Passage that will allow the tribal Department of Natural Resources (DNR) to monitor and manage the walleye migration from the Red Lake River to Red Lake and vice versa.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Red Rock Dam and Lake Red Rock, Iowa

AUTHORIZATION: Flood Control Act of 1938, Public Law 75-761

LOCATION AND DESCRIPTION: Lake Red Rock is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located on the Des Moines River southeast of Des Moines, Iowa. Conservation pool is 15,600 acres which makes it Iowa's largest lake; and the storage volume is 1,750,400 acre-feet at flood pool level. Cumulative damages prevented since project's inception in 1969 is approximately $536,634,000. The project includes 50,300 acres of fee title lands and there are 11 recreation area sites.

RECOVERY ACT ALLOCATIONS TO DATE: $725,000
CONFERENCE FOR FY 2010: **T**: $ 4,056,000
BUDGET FOR FY 2011: **M:** 4,949,000 **O:** $3,186,000 **T**: $8,135,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $6,394,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for non-routine maintenance items as follows: Upgrade South East Des Moines Pump Station, Tainter Gate Mechanical System Evaluation and Rehab, Repair South East Des Moines Levee Wall, and Raise 9300 Feet of Earthen Levee and Railroad Gate Closure.

Rec: $1,392,000 – Routine operation and maintenance of 11 recreation areas.

Hydro: N/A

ES: $349,000 – Routine operation and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, as well as continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth, LA

AUTHORIZATION: River and Harbor Act of 1958

LOCATION AND DESCRIPTION: The project is located in south Louisiana. The project provides for annual recurring maintenance control of water hyacinth and other aquatic vegetation in Federally maintained waterways and feeders throughout south Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $1,340,000
BUDGET FOR FY 2011: **M**: $1,410,000 **O**: $0 **T:** $1,410,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 1,410,000 - Funds will be used to provide for annual recurring maintenance control of water hyacinth and associated noxious aquatic plants.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rend Lake, Illinois

AUTHORIZATION: Flood Control Act 1962

LOCATION AND DESCRIPTION: The project is located near Benton, Illinois, in Franklin and Jefferson Counties. The project provides flood control, water supply, recreation, and conservation of fish and wildlife. The earth fill dam with an un-gated main and auxiliary spillway provides the necessary features to create Rend Lake and support the project's purposes. The earth dam is located on the Big Muddy River at mile 103.7 and two sub-impoundment dams are located on the upper arms of the lake.

RECOVERY ACT ALLOCATIONS TO DATE: $26,186,000
CONFERENCE AMOUNT FOR FY2010: **T:** $5,118,000
BUDGET FOR FY2011: **M:** $1,957,000 **O:** $3,745,000 **T:** $5,702,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FDR: $2,285,000 - Provides annual recurring operation and maintenance costs of the earth embankment dam, 18,900 acre reservoir, monitoring of two sub-impoundment dams, 10 breakwaters, and maintenance and administration buildings to accomplish FDR mission in the Big Muddy Watershed. Funding allows for the structural safety and operational adequacy of the 10,600 foot main dam, 435 foot spillway, 800 foot auxiliary spillway, stilling basin and appurtenant structures. DSAC IV.

Rec: $2,714,000 - Annual recurring operation and maintenances activities associated with recreation areas and recreation facilities at 15 federal recreation areas. Ensures recreation areas are operated in a safe manner at an acceptable level of service. Work includes public safety, operations and maintenance of roads, water lines, sewer lines, electrical systems, and buildings and structures. Funds will be leveraged to maximize benefits to the region and nation.

Hydro: N/A

ES: $651,000 - Minimal operation and maintenance costs for recurring environmental stewardship activities that contribute to our legal mandates under Endangered Species Act, Forest Cover Act, National Environmental Protection Act, Fish and Wildlife Coordination Act, Clean Water Act and the Migratory Bird Treaty Act. Funds will accomplish basic and essential stewardship functions for protection of project natural resources on 20,963 acres of Corps fee-owned land and 18,900 acres of water. Meet minimum environmental stewardship responsibilites.

WS: $52,000 - Annual recurring operation costs associated with the water supply functions which provide 109,000 acre feet of storage.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Reservoirs at Headwaters of Mississippi River, MN

AUTHORIZATION: RHAs of 1880, 1882 and 1958; FCAs of 1944 and 1958; Water Supply Act of 1958, Fish and Wildlife Coordination Act of 1958; Federal Water Pollution Control Act Amendments of 1972

LOCATION AND DESCRIPTION: The Reservoirs at the Headwaters of the Mississippi River Project are located in north central Minnesota in Itasca, Beltrami, Hubbard, Aitkin, Cass, and Crow Wing Counties. Reservoirs include Winnibigoshish, Leech Lake, Pokegama, Sandy Lake, Pine River, and Gull Lake. The six dams were constructed or re-constructed between 1900 and 1913 for the purpose of aiding navigation by stabilizing water flow in the Mississippi River between St. Paul, Minnesota, and Prairie du Chien, Wisconsin. The project includes six Corps managed campgrounds and several day use areas serving approximately 1.7 million visitors annually. The project's water resource management impacts several communities, thousands of property owners and countless recreational users. Its natural resources are valued by resource agencies, industry and Native American communities.

RECOVERY ACT ALLOCATIONS TO DATE: $4,299,000
CONFERENCE FOR FY 2010: T: $3,229,000
BUDGET FOR FY 2011: **M**: $ 782,000 **O**: $3,599,000 **T**: $ 4,381,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,559,000 - Operate and maintain 6 dams to meet minimum requirements for dam safety, instrumentation and environmental compliance; complete scheduled periodic inspections. Prepare Plans and Specs to rehabilitate Gull Lake and Leech Lake stop log system by replacing old, inefficient deteriorating stop logs and rehabilitate old slide gates. Remove deteriorating concrete and pour new concrete to fill voids at Pokegama Dam. Acquire new water control equipment.

Rec: $1,775,000 - Routine operation and maintenance of recreation facilities. Execute all directed programs including Water Safety, Fee Program, Visitor Assistance, etc.

Hydro: N/A

ES: $47,000 - Conduct operations and operational maintenance tasks associated with managing the natural resource base. This includes implementation of operational management plan recommendations for basic natural resource operational functions including conservation and protection of soil water wetland forest and vegetation. This work is required by Flood Control Act of 1944 and the Fish and Wildlife Coordination Act.

WS: N/A

OTHER INFORMATION: Although they were authorized primarily for navigation, the reservoirs operate to reduce flood stages in the vicinity of Aitkin and to facilitate use of the area for recreational purposes and fish and wildlife conservation. The reservoirs are in the heart of a very popular resort area. On Gull, Leech, Sandy, Pokegama and Winnibigoshish Lakes, and at Pine River Lake, the Corps has placed facilities for swimming, boat launching, camping, picnicking and sanitation. Areas have also been made available to State and local interests for recreational purposes. The regulated outflow from the reservoirs contributes to improved water supply, pollution abatement and industrial development.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rosedale Harbor, Mississippi

AUTHORIZATION: River and Harbor Act 1960

LOCATION AND DESCRIPTION: Rosedale Harbor is a slack-water, shallow draft harbor, located along the Mississippi River in Bolivar County, Mississippi. This project's purpose is to meet a transportation need for water-oriented industry in Bolivar, Coahoma, and Sunflower Counties in Mississippi.

RECOVERY ACT ALLOCATIONS TO DATE: $581,000
CONFERENCE FOR FY 2010: T: $590,000
BUDGET FOR FY 2011: M: $0 **O**: $11,000 **T**: $11,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONSFOR FY 2011:

N: $11,000 – Funding provides for channel condition surveys for maintenance dredging to maintain a 9-foot draft channel. This is a high sediment harbor controlled by the rise and fall of the Mississippi River.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: Without maintenance dredging funds, this harbor will lose project dimensions requiring the harbor to cease operations during the busiest time of the year when crops are harvested and shipped via Rosedale Harbor. This harbor services many small communities and farmers in the Mississippi Delta. The project was constructed in 1978 and has been maintained annually. The loss of navigation will have significant adverse economic impacts on the region.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Saylorville Lake, Iowa

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Saylorville Lake is a multiple purpose project providing primary benefits in flood control and low-flow augmentation and secondary benefits in recreation, fish and wildlife management, forest management, and water quality improvement. The dam is located about 11 miles northwest of Des Moines, Iowa, on the Des Moines River. Conservation pool is 5,950 acres; with a storage volume of 586,000 acre-feet at flood pool level. Cumulative damages prevented since project's inception (1975) = $180,026,000. The project includes 25,515 acres of fee title lands and there are 13 recreation area sites.

RECOVERY ACT ALLOCATIONS TO DATE: $3,271,000
CONFERENCE FOR FY 2010: T: $ 4,615,000
BUDGET FOR FY 2011: **M:** $1,102,000 **O:** $3,901,000 T: $5,003,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,663,000 – Routine operation and maintenance of the flood control works to reduce flooding downstream and related water control features. Funds would also provide for Venting Modification in the Gate Tower to Prevent Implosion.

Rec: $1,865,000 – Routine operation and maintenance of 13 recreation areas.

Hydro: N/A

ES: $505,000 – Routine operation and maintenance to reduce immediate degradation and loss of natural resource base to include land and water acres, as well as continue cultural and historic property management.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Souris River, ND

AUTHORIZATION: WRDA 1986 (PL 99-662)

LOCATION AND DESCRIPTION: On the Souris River in Ward, Renville, McHenry, and Bottineau Counties in northwestern North Dakota. The existing Lake Darling Dam is located about 20 miles northwest of Minot, North Dakota. The project also includes features at the communities of Sawyer and Velva and at various locations along the 358 mile U.S. portion of the Souris River.

The 1986 Water Resources Development Act (Public Law 99-662) authorized dam safety and flood control modifications to Lake Darling Dam and 7 other dams in the Upper Souris and J. Clark Salyer National Wildlife refuges. Associated facilities include a maintenance building at Lake Darling Dam and an electrified carp barrier at dam 357. Mitigation features for project include dikes and 4 pump stations at Upper Souris NWR and; raised and upgraded embankments for dams 326, 332 and 341 and a low flow structure for dam 320 at J. Clark Salyer NWR. The construction project was completed in 1998.

RECOVERY ACT ALLOCATIONS TO DATE: $45,000
CONFERENCE FOR FY 2010: **T**: $272,000
BUDGET FOR FY 2011: **M**: $167,000 **O**: $342,000 **T**: $509,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $509,000 – Operate, maintain, and monitor dam and meet minimum requirements for dam safety, instrumentation, periodic inspection and to provide design operation. Repair tainter gate leakage, bulkhead testing/repair, and update and catalog project datum.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: A Memorandum of Understanding between the Department of the Interior (Fish and Wildlife Service) and the Department of the Army was formalized on June 2, 1989 establishing procedures, administration, cooperation and coordination between respective agencies for Construction, Operation and Maintenance, Rehabilitation and Replacement responsibilities for project flood control and mitigation features.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Union Lake, Missouri

AUTHORIZATION: Sec 3182 of WRDA 07 (Land Conveyances).

LOCATION AND DESCRIPTION: The Corps of Engineers owns fee title to 205.50 acres of land in the vicinity of Union, Missouri. This property was acquired for the construction of the Union Lake Project, authorized by the Flood Control Act of 28 June 1938 (PL 761-75), Comprehensive Legislation Flood Control Act of 1944 (PL 534-78) (Recreation), Fish and Wildlife Coordination Act of 1958 (PL 85-624), and Water Supply Act of 1958. The project was de-authorized by Public Law 99-662, Sec. 1001, enacted November 17, 1986. Section 3182(f) of WRDA 2007 authorized the Corps of Engineers to convey all right, title, and interest in and to the entire 205.50 acres.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: **T:** $6,000
BUDGET FOR FY2011: **M:** $0 **O:** $5,000 **T:** $5,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FDR: N/A

Rec: N/A

Hydro: N/A

ES: $5,000 - Fund a contractual obligation for housing of archeological collections at Illinois State Museum. This ensures compliance with cultural resources mandates in the National Historic Preservation Act, Archaeological Resources Protection Act, Native American Graves Protection and Repatriation Act, and in keeping with 36 CFR Part 79 and the obligation to consult with federally recognized Native American tribes on cultural resources issues in a manner that is consistent with the above mandates.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wallace Lake, Louisiana

AUTHORIZATION: Flood Control Act of 22 June 1936, H.D. 378, 74th Congress

LOCATION AND DESCRIPTION: Wallace Lake Dam is located on Cypress Bayou, a tributary of Bayou Pierre. The primary purpose of the project is flood control, with conservation and recreation as other benefits.

RECOVERY ACT ALLOCATIONS TO DATE: $287,000
CONFERENCE FOR FY 2010: **T**: $232,000
BUDGET FOR FY 2011: **M**: $0 **O**: $241,000 **T**: $241,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A.

FDR: $170,000 - Provides for routine operation and maintenance of the operations of dam, water control/quality analysis, collection of data and evaluation and real estate management.

Rec: $71,000 - Provides for operation and maintenance of recreation facilities.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waterway from Empire to the Gulf, LA

AUTHORIZATION: River and Harbor Act of 24 July 1946, Ch. 594 – PL 525.

LOCATION AND DESCRIPTION: The project is located in Plaquemines Parish. It consists of a 9.5 mile channel from the Dollut Canal to the Gulf of Mexico, with 9 foot by 80 foot dimensions.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $ 47,000
BUDGET FOR FY 2011: **M**: $ 0 **O**: $ 5,000 **T**: $ 5,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 5,000 - Funds will be used for surveys.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waterway from Intracoastal Waterway to Bayou Dulac, LA

AUTHORIZATION: River and Harbor Act of 23 Oct 1962, Sec 101

LOCATION AND DESCRIPTION: The project is located in Terrebonne Parish and consists of a 10-foot deep by 45-foot wide channel in Bayou LeCarpe from the Gulf Intracoastal Waterway via Bayou Pelton and Bayou Grand Caillou to Bayou Dulac with channel dimensions of 5-feet deep by 40-feet wide.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $48,000
BUDGET FOR FY 2011: **M**: $ 0 **O**: $ 30,000 **T**: $ 30,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 30,000 - Funds will be used for hydrographic surveys, preparation of Environmental Assessments for wetland development restoration sites, and provide right-of-entry for dredged material disposal areas.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: White River, AR

AUTHORIZATION: The River and Harbors Act of 13 July 1892 authorized the original project. Maintenance was discontinued after FY 1951 due to a decline in traffic volume. Maintenance was resumed in FY 1961. The Office of the Chief of Engineers modified the project authority on 11 March 1968, per Section 107 of the 1960 River and Harbors Act.

LOCATION AND DESCRIPTION: This project is located on the White River from mile 9.8 to mile 255, near Newport, in Jackson County. The project provides for maintenance of the navigation channel with sufficient width and depth to accommodate existing commerce by snagging, dredging, and construction work. The existing authority is for 4.5 feet by 100 feet from mile 198 to 255 at 3.5 feet on the Newport gage; and 8 feet by 125 feet from mile 9.8 to 198 at 12 feet on the Clarendon gage, including a 5 feet minimum draft at low river stages. The local interest is the Arkansas Waterways Commission.

RECOVERY ACT ALLOCATIONS TO DATE: $4,445,000
CONFERENCE FOR FY 2010: **T**: $ 40,000
BUDGET FOR FY 2011: **M**: $0 **O**: $30,000 **T**: $30,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $30,000 - Provides for performance of minimal surveys. These funds would allow for determination of current harbor conditions for navigation.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wolf River Harbor, TN

AUTHORIZATION: The National Industrial Recovery Act (NIRA) of 16 June 1933; modified by the Flood Control Act of 03 July 1958, J. D. 76/85/1.

LOCATION AND DESCRIPTION: This harbor is located on the Mississippi River (mile 737.0), near Memphis in Shelby County, TN. This is a slack-water harbor and is used primarily for the import of industrial materials. The project provides for a navigation channel 9 feet deep by 250 feet wide at low water from the mouth to Keel Avenue (mile 1.75) and 200 feet wide from Keel Avenue to mile 3.0. The local interest is the city of Memphis, TN.

RECOVERY ACT ALLOCATIONS TO DATE: $653,000
CONFERENCE FOR FY 2010: **T**: $354,000
BUDGET FOR FY 2011: **M**: $110,000 **O**: $70,000 **T**: $180,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $180,000 - Provides for the performance of water data activities and surveys. These funds would allow for the determination of current harbor conditions for navigation, minimal dredging of the harbor and dredging at the mouth of the harbor.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yazoo River, Mississippi

AUTHORIZATION: Water Resources Development Act 1986 (PL 99-662)

LOCATION AND DESCRIPTION: The Yazoo River provides navigation from Mouth of the Yazoo River, Vicksburg, Mississippi, to Greenwood, Mississippi. Clearing and snagging of the channel provides a clear channel to Yazoo City. The project depth of 9 feet is authorized, but not dredged, to Greenwood, a distance of over 158 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $99,000
CONFERENCE FOR FY 2010: **T**: $100,000
BUDGET FOR FY 2011: **M**: $26,000 **O**: $0 **T**: $26,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $26,000 – Funding provides for minimal clearing and snagging of the channel to maintain the authorized channel at the confluence of the Yazoo River, Vicksburg Harbor and the Yazoo Canal.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: This project meets a transportation need of water-oriented industry from Greenwood to Vicksburg, Mississippi. Without maintenance funds, the project would become hazardous to navigation due to log jams and snags. This river services many small communities and farmers in the Mississippi Delta.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yellow Bend Port, Arkansas

AUTHORIZATION: River and Harbor Act of 1960

LOCATION AND DESCRIPTION: Yellow Bend Port is an inland port located along the Mississippi River in Desha County, Arkansas. This project's purpose is to meet transportation needs for water-oriented industry in Desha and Chicot Counties in Arkansas.

RECOVERY ACT ALLOCATIONS TO DATE: $160,000
CONFERENCE FOR FY 2010: **T**: $100,000
BUDGET FOR FY 2011: **M**: $0 **O**: $3,000 **T**: $3,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,000 - Provides for channel condition surveys for maintenance dredging to maintain a 9-foot draft channel. This is a high sediment harbor controlled by the rise and fall of the Mississippi River.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: Without maintenance dredging funds, this port will lose project dimensions requiring the port to be shut down during the busiest time of the year when crops are harvested and shipped. This port services many small communities and farmers in the Arkansas Delta. The project was constructed in 1990 and has been maintained annually. The loss of navigation will have significant adverse economic impacts on the region.

MISSISSIPPI RIVER AND TRIBUTARIES

MISSISSIPPI RIVER AND TRIBUTARIES
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Justification of Estimates for Civil Works Activities
Department of the Army, Corps of Engineers
Fiscal Year 2011

SUMMARY MISSISSIPPI RIVER COMMISSION

Mississippi River and Tributaries, AR, IL, KY, LA, MO, MS, & TN

	FY 2010 Conference Allocation	FY 2011 President's Budget	Increase or Decrease
Investigations	$ 3,212,000	$ 846,000	$ - 2,366,000
Survey	3,212,000	846,000	- 2,366,000
Preconstruction Engineering and Design	0	0	0
Construction	164,118,000	85,290,000	- 78,828,000
Operation and Maintenance	172,670,000	153,864,000	- 18,806,000
Less Reduction for Savings and Slippage	0	0	0
Less Reduction for Rescission	0	0	0
GRAND TOTAL, MISSISSIPPI RIVER COMMISSION	340,000,000	240,000,000	- 100,000,000

FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

1 February 2010

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Investigations, Fiscal Year 2011

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Allocation FY 2011 $	Additional to Complete After FY 2011 $
MISSISSIPPI							
Coldwater River Basin Below Arkabutla Lake, MS Vicksburg District	2,698,000	1,694,000	295,000	125,000	338,000	246,000	0

The study area is located in northwest Mississippi approximately 30 miles south of Memphis, Tennessee. Increased development has created adverse impacts on area streams in meeting water quality standards while maintaining flood damage reduction goals. The Yazoo Mississippi Delta Joint Water Management District in conjunction with Tunica County, Mississippi, has requested assistance in identifying measures to improve water management, water quality, flood control, and the wetland ecosystem throughout this watershed. The sponsors desire specific projects and guidelines for future development that will improve flood protection and the aquatic environment and conserve water resources. Projects will also be designed to prevent increases in downstream stages. The sponsors are the Yazoo Mississippi Delta Joint Water Management District and Tunica County Soil and Water Conservation District. The Feasibility Cost Sharing agreement was executed 18 June 2003.

Fiscal Year 2010 funds are being utilized to continue environmental and economic base condition analyses, continue alternative plan formulation and coordination with local, state and Federal agencies for watershed optimization, and continue hydrologic and hydraulic modeling and economic and environmental analyses for future without-project and with-project watershed conditions.

Fiscal Year 2011 funds will be used to complete the feasibility phase of the study.

The estimated cost of the feasibility phase is $5,082,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$5,239,000
Reconnaissance Phase (Federal)	157,000
Feasibility Phase (Federal)	2,541,000
Feasibility Phase (Non-Federal)	2,541,000

The reconnaissance phase was completed in June 2003. The estimated feasibility study completion date is 30 September 2011.

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, TN - Investigations, Fiscal Year 2011

Study	Total Estimated Federal Cost $	Allocation Prior To FY 2008 $	Allocation for FY 2008 $	Allocation for FY 2009 1/ $	Allocation for FY 2010 $	Allocation Requested for FY 2011 $	Additional to Complete After FY 2011 $
Collection and Study of Basic Data	N/A	N/A	1,378,000	5,570,000	1,608,000	500,000	N/A

Surveys, Gages, and Observations.

Fiscal Year 2010 funds are being used for the collection of essential basic data which are subsequently used in the planning and design of flood control projects. The data collected under this activity are for authorized projects or units thereof. The data to be collected will consist of information on stream flow, rainfall, floods, and other items of related hydrologic nature.

Fiscal Year 2011 funds will be used for the collection of essential basic data which are subsequently used in the planning and design of flood control projects and water quality monitoring. The data collected under this activity are for authorized projects or units thereof. The data to be collected will consist of information on stream flow, rainfall, floods, and other items of related hydrologic nature continue to rely on the old and outdated USGS quadrangle maps, many of which have not been updated in 40 years.

1/ Includes $4,003,000 Recovery Act Allocations to Date

CONSTRUCTION

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin, Louisiana (Continuing)

LOCATION: The project is located in south-central Louisiana below the latitude of Old River and west of and generally paralleling the Mississippi River. The Atchafalaya River flows through the middle of the basin.

DESCRIPTION: The plan of improvement consists of a leveed floodway about 15 miles wide and 110 miles long that extends generally from the latitude of Old River to the Gulf of Mexico. The upper half of the basin is divided by the leveed Atchafalaya River. The Morganza Floodway is to the east of the Atchafalaya River and has a capacity of 600,000 cubic feet per second, which is introduced into the floodway by a gated control structure. The West Atchafalaya Floodway, which is located to the west of the river, is placed into operation when the fuse plug sections are overtopped bringing flows from the river that will introduce 900,000 cubic feet per second into the lower basin. After passing through the floodways, the flood waters enter the Gulf of Mexico through the Lower Atchafalaya River at Morgan City and the Wax Lake Outlet channel constructed west of Patterson, Louisiana. The project is part of a system and all work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1934, 1936, 1938, 1941, 1946, 1950, 1954.

REMAINING BENEFIT - REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 per cent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT - COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT - COST RATIO: Benefits are from latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$1,798,000,000		Entire Project	96 Physical	TBD
Estimated Non-Federal Cost		$ 11,000,000				
Cash Contributions	$2,500,000					
Other Costs	8,500,000					
Total Estimated Project Cost		$1,809,000,000				
Allocations to 30 September 2007		$ 1,018,292,000				
Allocation for FY 2008		16,419,000				
Allocation for FY 2009		12,800,000				
Recovery Act Allocations to Date		11,063,000				
Conference Allocation for FY 2010		14,491,000				
Allocation for FY 2010		14,491,000				
Allocations through FY 2010		1,073,065,000	60			
Allocation Requested for FY 2011		6,300,000	60			
Programmed Balance to Complete after FY 2011		718,635,000				
Unprogrammed Balance to Complete after FY 2011		0				

PHYSICAL DATA

Levees:
  Average Height - 20 feet
  Length - 449 miles
Relocations:
  Roads - 15 miles
  Railroads - 20 miles
Drainage Structures:

Pointe Coupee	2 gates, 10.5 by 15 feet
Melville	2 - 72-inch corrugated metal pipe with vertical lift gate
Darbonne	10-foot by 10-foot barrel with vertical lift gate
Bayou des Glaises	72-inch corrugated metal pipe with flap gate
Bayou Courtableau	2 weirs, 503 feet long
Brushy Bayou	5-foot by 6-foot barrel with vertical lift gate
Bayou Courtableau	5-barrel, each 10 feet by 15 feet with vertical lift gate
Wax Lake East	25 pipes, 5 feet in diameter with slide gates
Wax Lake West	15 pipes, 5 feet in diameter with slide gates

Lands and Damages:
  289,212 acres

Pumping Stations:
  Number - 15
    Capacity - Minimum - 50 cubic feet per second
    Maximum - 1,500 cubic feet per second
    Average - 400 cubic feet per second
Bank Stabilization:
  Length - 58 miles
Floodgates:
  Charenton - Sector-gated, 45 feet wide
  East Calumet - Sector-gated, 45 feet wide
  West Calumet - Sector-gated, 45 feet wide
Channels:
  Length: 147.1 miles
Locks:
  Bayou Boeuf, 75 feet by 1,156 feet, earth chamber
  Bayou Sorrel, 56 feet by 797 feet, earth chamber
  Berwick, 45 feet by 300 feet, concrete chamber
Atchafalaya River Navigation:
  New Channel-10.1 miles
Freshwater Control Structure (Planned):
  Sherburne - dual 10-foot by 10-foot reinforced concrete box culverts with gates
  Henderson - dual 10-foot by 10-foot reinforced concrete box culverts with gates

JUSTIFICATION: The Mississippi River below Morganza Floodway is capable of carrying 1,500,000 cubic feet per second without threatening the integrity of the levees along its banks which protect densely populated areas, highly developed agricultural lands, industries, and the City of New Orleans, as well as a number of communities. Studies indicate that the project flood against which the flood control protection works are designed could be of such magnitude that 3,030,000 cubic feet per second will pass the latitude of Old River. Since the Mississippi River below the Morganza Floodway can carry only one-half this amount, the other one-half must be diverted from the main channel. The diversion is made through the Old River Control Structure, the Old River Auxiliary Structure, and the Atchafalaya River, and through the Morganza and West Atchafalaya Floodways. In order to prevent diverted waters from spreading over the rich and highly developed agricultural lands within the Atchafalaya Basin, these rivers and floodways have been leveed to confine the diverted flow.

This floodway system is, for all practical purposes, a part of the main river system, in as much as the integrity of the main river system depends upon its utilization. Since this construction began, farms and industries have developed in the areas adjacent to the floodway assuming that they would receive protection. Therefore, overtopping or crevassing of the levees would cause far more damage than anticipated at the start of project construction. The main protection levees in the lower reaches are deficient because of consolidation of the soft underlying soils, especially those below the latitude of Krotz Springs, LA. Early construction of these levees to the approved grade is essential, not only for flood protection, but as a means of access for the movement of manpower and equipment to any spot threatened by floods.

The Atchafalaya Basin project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of the Atchafalaya Basin derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is $193.3 billion in 2009 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $14.6 billion in damages in 2009 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2009 prices, damages without the projects would have been $52.9 billion and damages prevented would have been $50.0 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	$ 1,069,317,857	$ 363,019,604
Navigation	216,151,028	95,783,058
Area Redevelopment	18,964,939	915,984
Recreation	2,622,414	2,390,516
Total	$1,307,056,238	$ 462,109,162

FISCAL YEAR 2010: Current year funds are being used as follows:

Lands and Damages	25,000
Surveys and Layouts	50,000
Construction – Gaps	8,000,000
Planning, Engineering and Design	4,216,000
Construction Management	2,200,000
Total	14,491,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Lands and Damages	5,000
Surveys and Layouts	50,000
Construction – Gaps	2,745,000
Planning, Engineering and Design	2,500,000
Construction Management	1,000,000
Total	6,300,000

NON-FEDERAL COST: In accordance with the Flood Control Act of 15 May 1928, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Bear the administrative costs for furnishing rights-of-way for levee and levee drainage construction; purchase maintenance equipment; and perform miscellaneous levee work.	$ 1,110,000	0
Agree to accept lands turned over to them under the provision of Section 4 of the Flood Control Act of 15 May 1928, and as provided in the Flood Control Act of 18 August 1941.	0	0
Bear costs for and maintain all flood control works after their completion, except controlling and regulating spillway structures, including special levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to the levees.	0	$3,700,000
For the Upper Point Coupee Loop Area, provide an interior drainage system and comply with the applicable provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, approved 2 January 1971, and comply with the provision of Section 221 of the Flood Control Act of 1970, PL 91-611.	7,390,000	0
The State of Louisiana, through the Department of Transportation and Development as the local sponsor, will provide a voluntary 25% cost share for the planning, design, and construction of the interim protection for floodproofing of riverfront businesses in Morgan City and Berwick.	2,500,000	0
Total Non-Federal Costs	$11,000,000	$3,700,000

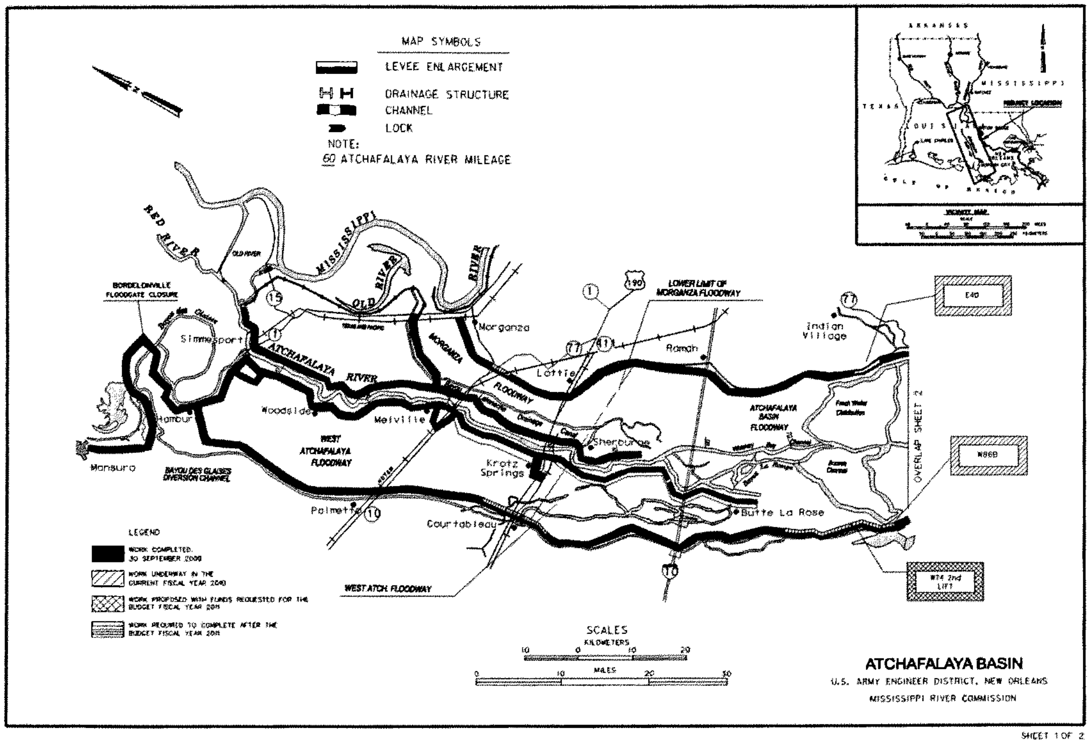
STATUS OF LOCAL COOPERATION: Necessary assurances for maintaining the project have been furnished by the Atchafalaya Basin Levee District; Red River, Atchafalaya and Bayou Boeuf Levee District; St. Mary Parish Government; Pointe Coupee Parish Police Jury; and the towns of Berwick and Morgan City, LA. These agencies are furnishing all requirements of local cooperation necessary for meeting present project schedules.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,798,000,000 is the same as last presented to Congress (Budget Year 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982. The final Environmental Impact Statement for the Upper Pointe Coupee Loop Area was filed with the Council on Environment Quality on 11 June 1976.

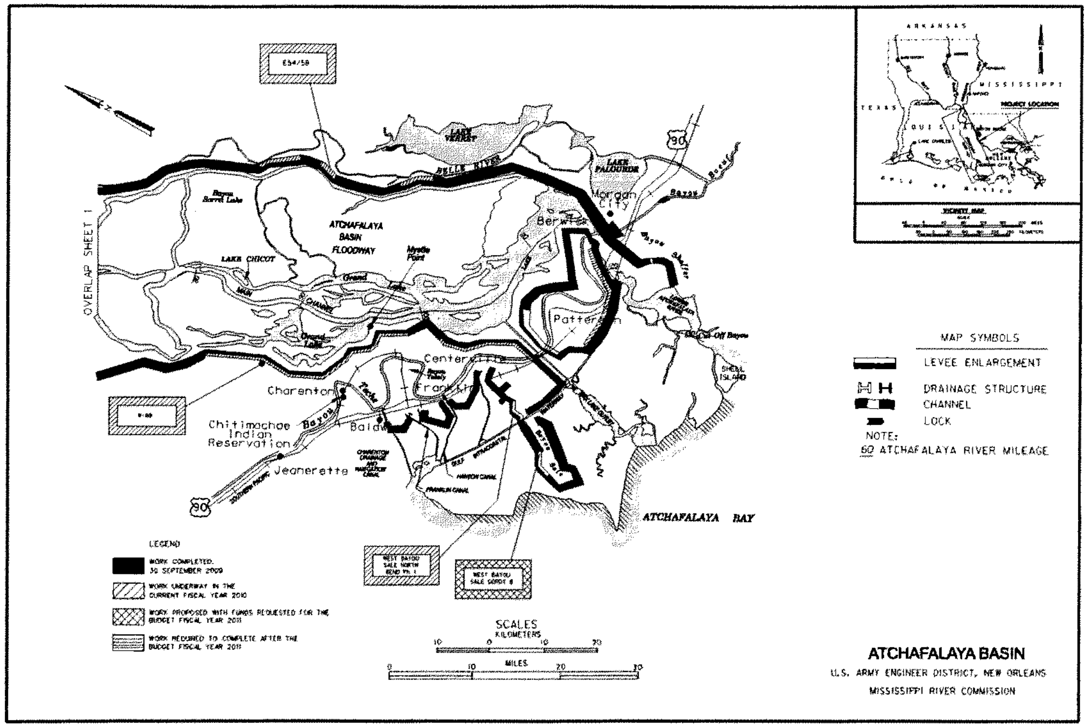
OTHER INFORMATION: Funds to initiate construction were appropriated in 1928.

Bayou Sorrel Lock is a component of the Mississippi River and Tributaries (MR&T), Atchafalaya Basin, Louisiana Project. The lock provides navigation access, while maintaining a continuous line of protection against the MR&T project design flood flow. The project flood flow line for the Atchafalaya Basin was modified in 1986 to the current elevation of 28.7 feet National Geodetic Vertical Datum (NGVD). In order to maintain the level of flood protection provided by the Atchafalaya Basin, Louisiana Project, the lock must be modified or replaced. The need to modify Bayou Sorrel Lock presents an opportunity to address increasing navigation concerns at this lock. Planning, engineering, and design of the modification or replacement for flood reduction benefits were delayed until the optimum navigation plan could be studied. The feasibility study was completed in November 2003 and approved in March 2004. The flood control portion is fully Federally funded and justified under the Mississippi River and Tributaries project.


MAP SYMBOLS
LEVEE ENLARGEMENT
DRAINAGE STRUCTURE
CHANNEL
LOCK
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
LEGEND
WORK COMPLETED, 30 SEPTEMBER 2009
WORK UNDERWAY IN THE CURRENT FISCAL YEAR 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2011
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2011
RED RIVER
MISSISSIPPI
OLD RIVER
RIVER
BORDELONVILLE FLOODGATE CLOSURE
Simmesport
Hamburg
Mansura
BAYOU DES GLAISES DIVERSION CHANNEL
ATCHAFALAYA RIVER
Woodside
Melville
WEST ATCHAFALAYA FLOODWAY
Palmetto
Courtableau
WEST ATCH. FLOODWAY
MORGANZA FLOODWAY
Morganza
Lottie
Krotz Springs
Sherburne
LOWER LIMIT OF MORGANZA FLOODWAY
Ramah
ATCHAFALAYA BASIN FLOODWAY
Butte La Rose
Indian Village
OVERLAP SHEET 2
E40
W86B
W74 2nd LIFT
SCALES
KILOMETERS
MILES
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
ATCHAFALAYA BASIN
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2

Mississippi River Commission New Orleans District Atchafalaya Basin, LA

1 February 2010 MR&T - 18


ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
E54/58
OVERLAP SHEET 1
Bayou Sorrel Lake
LAKE CHICOT
ATCHAFALAYA BASIN FLOODWAY
Myette Point
Grand Lake
LAKE VERRET
BELLE RIVER
LAKE PALOURDE
Morgan City
Berwick
Bayou Boeuf
Bayou Shaffer
Cut-Off Bayou
SHELL ISLAND
Patterson
Centerville
Franklin
Charenton
Baldwin
Bayou Teche
Chitimacha Indian Reservation
Jeanerette
SOUTHERN PACIFIC
90
CHARENTON DRAINAGE AND NAVIGATION CANAL
HANSON CANAL
FRANKLIN CANAL
ATCHAFALAYA BAY
WEST BAYOU SALE NORTH BEND Pt. I
WEST BAYOU SALE GORDS 8
LEGEND
WORK COMPLETED 30 SEPTEMBER 2009
WORK UNDERWAY IN THE CURRENT FISCAL YEAR 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2011
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2011
SCALES
KILOMETERS
10 0 10 20
MILES
0 10 20 30
MAP SYMBOLS
LEVEE ENLARGEMENT
DRAINAGE STRUCTURE
CHANNEL
LOCK
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
ATCHAFALAYA BASIN
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 2 OF 2

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Construction

PROJECT: Channel Improvement, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The project is located in the Mississippi River and along its banks from the vicinity of Cairo, Illinois, to the Head of Passes, Louisiana, a distance of approximately 966 miles.

DESCRIPTION: The plan of improvement consists of stabilizing the banks of the river in a desirable alignment and obtaining the most efficient flow characteristics for it for flood control and navigation by means of revetments, dikes, foreshore protection, and improvement dredging. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1944, 1962, 1965, 1966, and 1970.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit – Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 per cent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$4,238,000,000	
Estimated Non-Federal Cost		$ 1,900,000	
Cash Contributions	$1,800,000		
Other Costs	100,000		
Total Estimated Project Cost		$4,239,900,000	
Allocations to 30 September 2007		$2,847,755,176	
Allocation for FY 2008		55,077,000	
Allocation for FY 2009		52,875,000	
Recovery Act Allocations To Date		21,389,700	
Conference Allowance for FY 2010		46,102,000	
Allocation for FY 2010		46,102,000	
Allocations to 30 September 2010		3,023,198,876	71
Allocation Requested for FY 2011		47,209,000	72
Programmed Balance to Complete After FY 2011		1,167,592,124	
Unprogrammed Balance to Complete After FY 2011		0	

STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	93	TBD

PHYSICAL DATA

Lands and Damages	19,135 acres
Revetments	1,085 miles
Dikes	339 miles
Dredging	As required
Foreshore Protection	160 miles
Pumping Station	1

JUSTIFICATION: The Channel Improvement Project is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River, and a few miscellaneous items. Because the benefits of Channel Improvement derive from the way in which they operate together with the Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River, with a drainage area of about 1,245,000 square miles, has a wide range of flow, increasing from an approximate minimum of 90,000 cubic feet per second (675,000 gallons per second) to a maximum of 2,345,000 cubic feet per second (17,587,000 gallons per second) which occurred in 1927 at the latitude of Red River Landing. The project flood is 3,030,000 cubic feet per second (22,500,000 gallons per second). Part of the tremendous energy of this volume of flowing water is directed toward a relentless attack on the banks of the river, causing the unprotected banks to cave into the river. As this caving progresses, the attack becomes more direct, the bendway moves in toward the levee, and more sediment is placed in the river and deposited downstream in the form of a sandbar. This bar gradually builds out into the channel and deflects the river's attack to the opposite bank. As the cycle is repeated the river tends to meander and lengthen. Revetment is placed against the banks of the river at locations where mainline levees are being threatened with destruction or where unsatisfactory alignment and channel conditions are developing. Revetment serves a three-fold purpose in that the river is prevented from encroaching on the Main Stem levees, excess material is kept out of the stream, and a favorable channel alignment and depth are maintained. An objective of the plan is to preserve favorable alignments and efficient cross-sectional areas and to prevent the river from creating new meander patterns. In wide reaches of the river, dikes are used to contract the channel width so as to produce a single efficient channel for navigation and to insure the flood carrying capacity of the river. Chutes and secondary channels are controlled for the same purpose. Improvement dredging is employed to assist the river in removing natural obstructions which deflect the current into undesirable patterns of flow and to assist in developing an efficient channel. Foreshore protection is utilized to preserve the integrity of the Mississippi River Levees from attack by erosion of the batture. Erosion of the batture leads to steep slopes which, when undermined, result in considerable loss of batture and possible failure of the levee.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is $193.3 billion in 2009 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $14.6 billion in damages in 2009 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2009 prices, damages without the projects would have been $52.9 billion and damages prevented would have been $50.0 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	$ 1,069,317,857	$ 363,019,604
Navigation	216,151,028	95,783,058
Area Redevelopment	18,964,939	915,984
Recreation	2,622,414	2,390,516
Total	$1,307,056,238	$ 462,109,162

FISCAL YEAR 2010: Current funds are being used as follows:

Revetments	$ 24,293,000
Dikes	$ 21,809,000
Total	$ 46,102,000

The items of revetment work are:	Approximate length in feet:
Island 18, MO	1,400
Cedar Point-Densford, TN	1,500
Pritchard, MO	1,900
Hardscrabble, LA	2,500
Reinforcement	8,020

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	83,000
Construction of Revetments	18,888,000
Cultural Resources	35,000
Planning, Engineering, and Design	4,690,000
Construction Management	597,000
Total	$ 24,293,000

FISCAL YEAR 2010 (Continued):

Dikes: The planned dike work consists of the following items:

Seyppel, AR	$ 1,100,000
Randolph, TN	2,500,000
Cottonwood Bar, LA/Arcadia Pt., MS	3,820,000
Waterproof, LA	4,002,000
Below Belle Island/Marshall Brown	7,305,000
Lands and Damages	40,000
Cultural Resources	30,000
Planning, Engineering, and Design	2,254,000
Construction Management	758,000
Total	$21,809,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Revetments	$ 32,500,000
Dikes	14,709,000
Total	$ 47,209,000

The items of revetment work are:	Approximate length in feet:
Chute of Island	1,100
Wolfe Island Bar, AR	700
Hickman Bar, KY	1,500
Ark City-Yellow Bend, AR	3,000
Reinforcement	11,350

Revetments: The planned program consists of items of work for which funds will be required as follows:

Lands and Damages	$ 85,000
Construction of Revetments	26,117,000
Cultural Resources	35,000
Planning, Engineering, and Design	5,703,000
Construction Management	560,000
Total	$ 32,500,000

FISCAL YEAR 2011 (Continued):

Dikes: The planned dike work consists of the following items:

Randolph, TN and Shoofly Bar, MS	$5,435,000
Victoria Bend, MS	4,300,000
Willow Cutoff, LA	1,700,000
Lands and Damages	50,000
Cultural Resources	40,000
Planning, Engineering, and Design	2,284,000
Construction Management	900,000
Total	$14,709,000

NON-FEDERAL COST: In accordance with Section 4 of the Flood Control Act of 1944, as amended by Section 207 of the Flood Control Act of 1962, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal area.	$ 100,000	
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, and replacement of recreation facilities.	1,800,000	$ 226,000
Total Non-Federal Costs	$ 1,900,000	$ 226,000

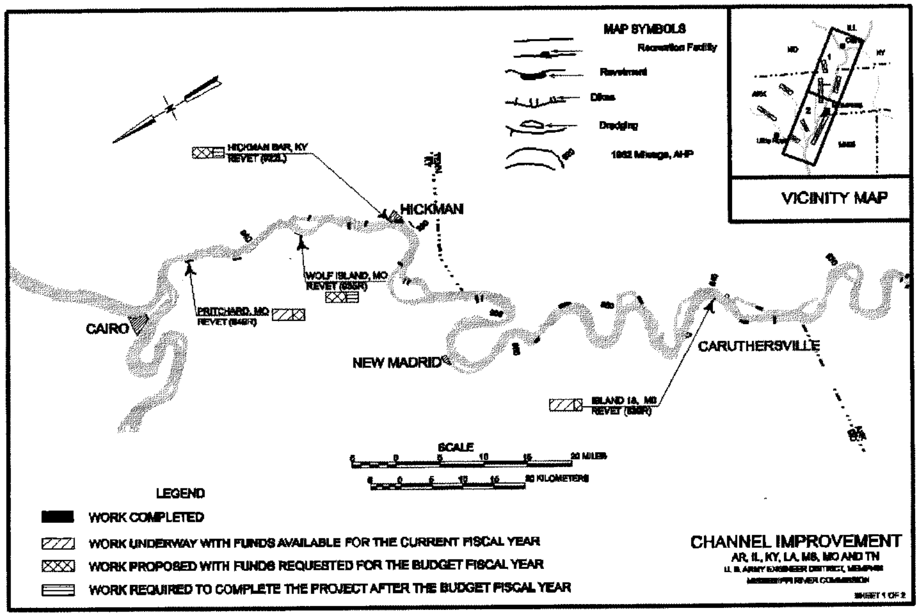
STATUS OF LOCAL COOPERATION: Assurances furnished by the Missouri Department of Conservation for the Dorena Recreation Facility were accepted 27 August 1971; assurances furnished by the Tennessee Department of Conservation for the Richardson Landing Recreation Facility were accepted 3 September 1976; and assurances furnished by the City of Memphis, Tennessee, for Volunteer Bicentennial Park were accepted 11 September 1975. Assurances furnished by the City of Osceola, Arkansas, for Lake Neark, Arkansas, are embodied in the contract for cost sharing approved on 19 September 1982. A Local Cooperation Agreement for the Ed Jones Boat Ramp with the State of Tennessee was signed 27 October 1988. A Local Cooperation Agreement for the Shelby Forest Boat Ramp with the State of Tennessee was signed 11 October 1990. A Local Cooperation Agreement for the Dyersburg, Tennessee, Boat Ramp with the State of Tennessee was signed 11 July 1994.

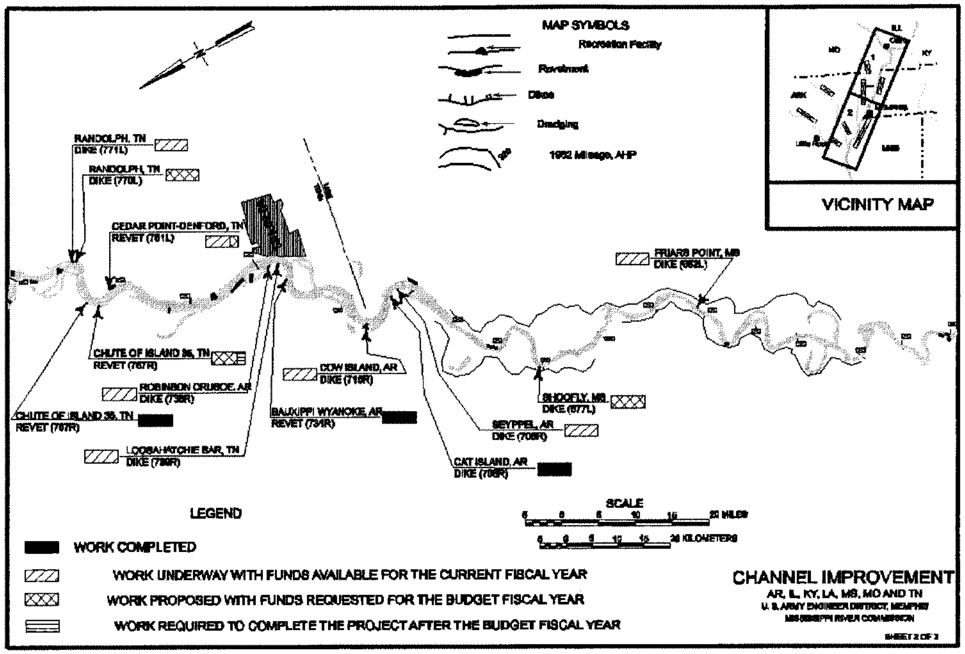
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $4,238,000,000 is an increase of $70,000,000 from the latest estimate ($4,168,000,000) presented to Congress (FY 2010). This change includes the following items:

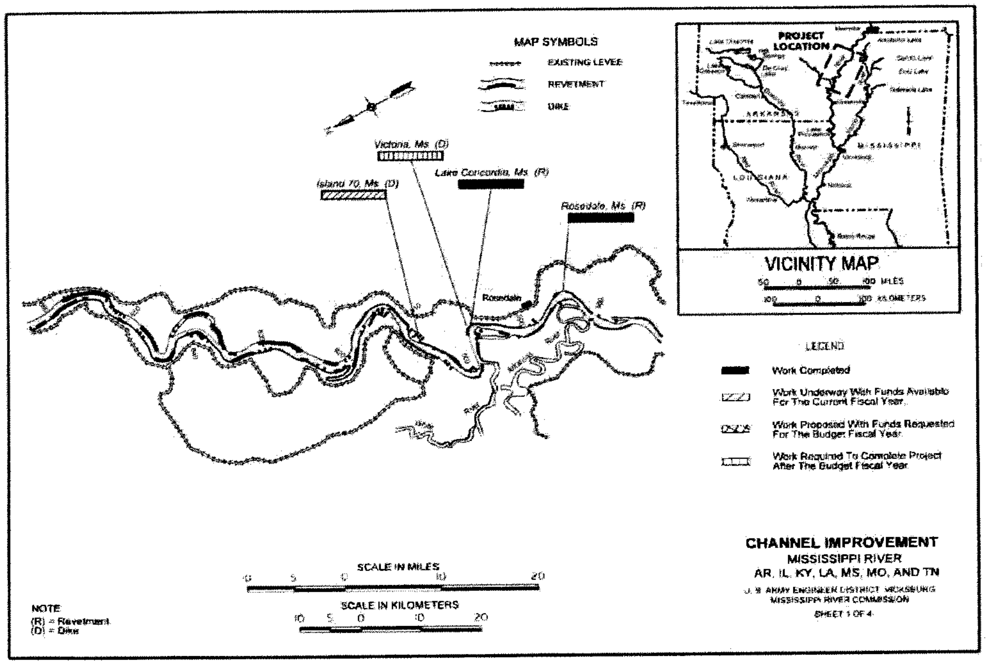
Item	Amount
Price Escalation on Construction Features	$68,439,000
Post Contract Award and Other Estimating Adjustments	0
Price Escalation on Real Estate	1,561,000
Total	$70,000,000

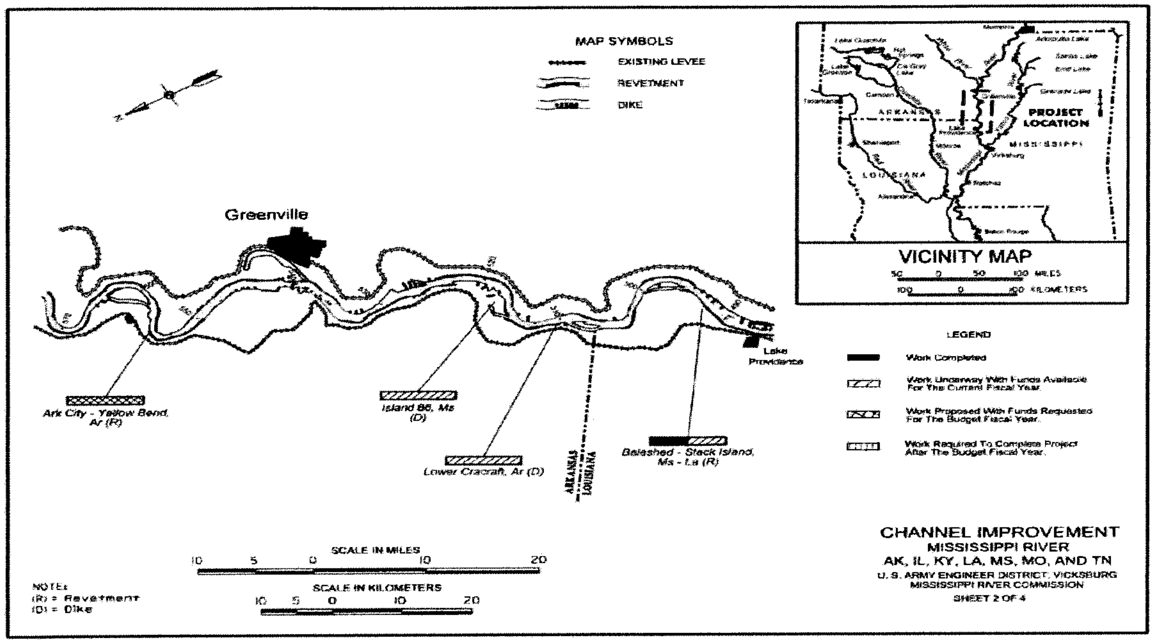
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976.

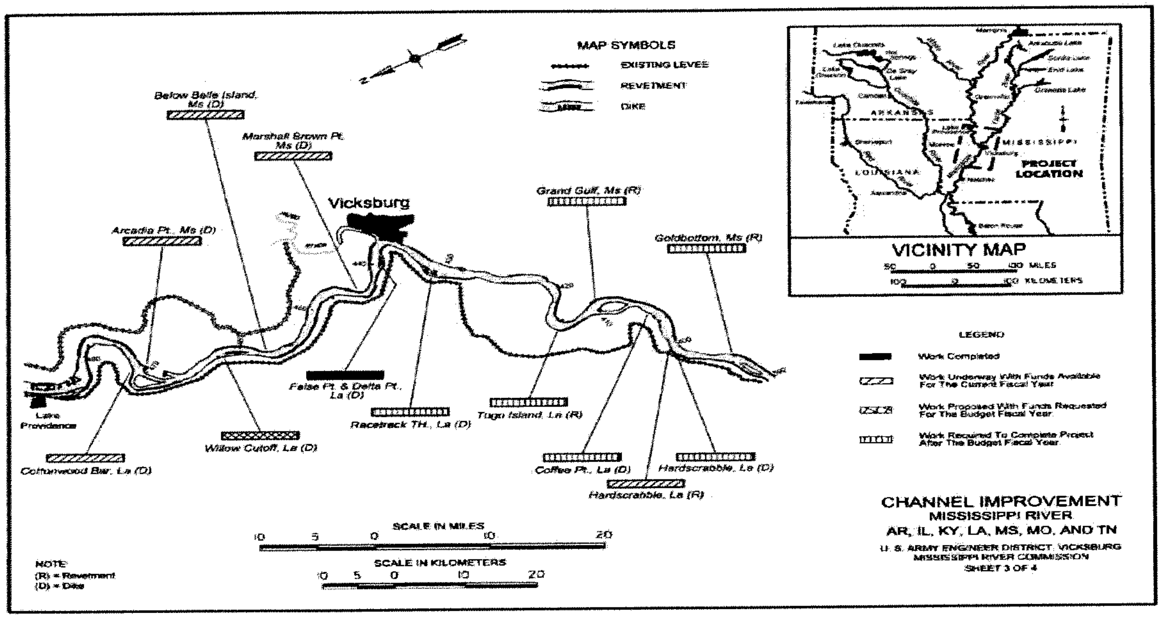
OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.


MAP SYMBOLS
Recreation Facility
Revetment
Dikes
Dredging
1962 Mileage, AHP
VICINITY MAP
IL
MO
KY
ARK
MISS
Little Rock
HICKMAN BAR, KY
REVET (922L)
HICKMAN
WOLF ISLAND, MO
REVET
PRITCHARD, MO
REVET
CAIRO
NEW MADRID
CARUTHERSVILLE
ISLAND 18, MO
REVET
SCALE
5 0 5 10 15 20 MILES
5 0 5 10 15 20 KILOMETERS
LEGEND
■ WORK COMPLETED
▨ WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
☒ WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
☰ WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2


MAP SYMBOLS
Recreation Facility
Revetment
Dikes
Dredging
1962 Mileage, AHP
VICINITY MAP
MO
IL
KY
ARK
MISS
Little Rock
RANDOLPH, TN
DIKE (771L)
RANDOLPH, TN
DIKE (770L)
CEDAR POINT-DENFORD, TN
REVET (761L)
CHUTE OF ISLAND 36, TN
REVET (767R)
ROBINSON CRUSOE, AR
DIKE (739R)
CHUTE OF ISLAND 35, TN
REVET (757R)
LOOSAHATCHIE BAR, TN
DIKE (759R)
COW ISLAND, AR
DIKE (718R)
BAUXIPPI WYANOKE, AR
REVET (734R)
FRIARS POINT, MS
DIKE (662L)
SHOOFLY, MS
DIKE (677L)
SEYPPEL, AR
DIKE (706R)
CAT ISLAND, AR
DIKE (706R)
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE
5 0 5 10 15 20 MILES
5 0 5 10 15 20 KILOMETERS
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 2


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Victoria, Ms (D)
Lake Concordia, Ms (R)
Island 70, Ms (D)
Rosedale, Ms (R)
Rosedale
PROJECT LOCATION
ARKANSAS
LOUISIANA
MISSISSIPPI
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE
(R) = Revetment
(D) = Dike
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 4


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Greenville
Lake Providence
Ark City - Yellow Bend, Ar (R)
Island 86, Ms (D)
Lower Cracraft, Ar (D)
ARKANSAS
LOUISIANA
Baleshed - Stack Island, Ms - La (R)
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
PROJECT LOCATION
ARKANSAS
LOUISIANA
MISSISSIPPI
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year.
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AK, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 4


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
Below Belle Island, Ms (D)
Marshall Brown Pt. Ms (D)
Vicksburg
Arcadia Pt., Ms (D)
Grand Gulf, Ms (R)
Goldbottom, Ms (R)
Lake Providence
Cottonwood Bar, La (D)
Willow Cutoff, La (D)
False Pt. & Delta Pt., La (D)
Racetrack TH., La (D)
Tugo Island, La (R)
Coffee Pt., La (D)
Hardscrabble, La (D)
Hardscrabble, La (R)
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
ARKANSAS
LOUISIANA
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PROJECT LOCATION
VICINITY MAP
50 0 50 100 MILES
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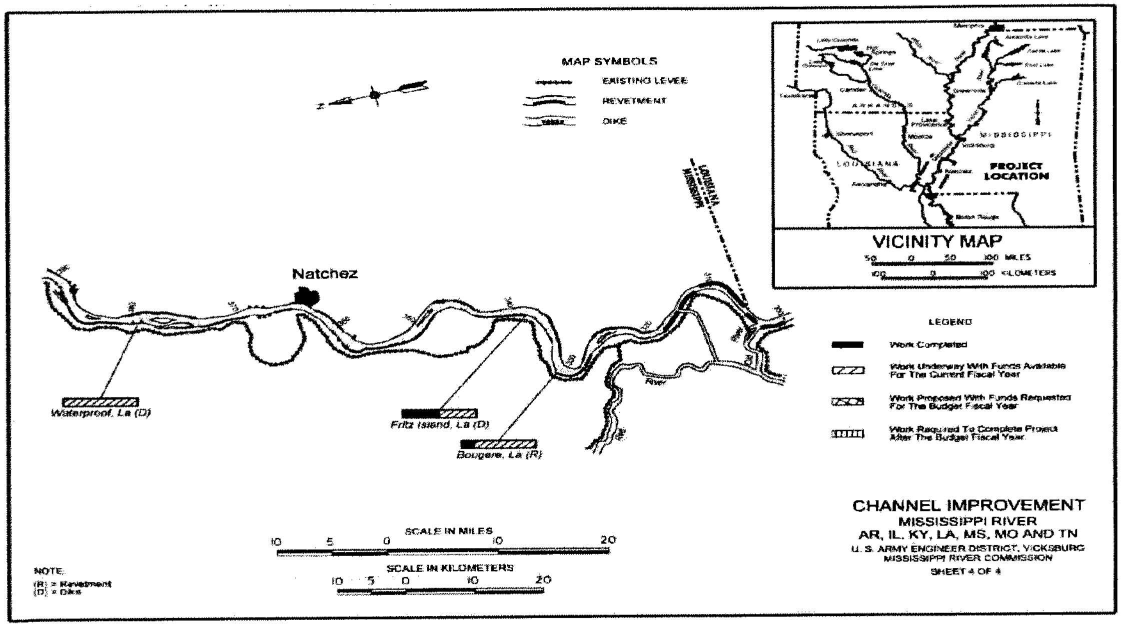
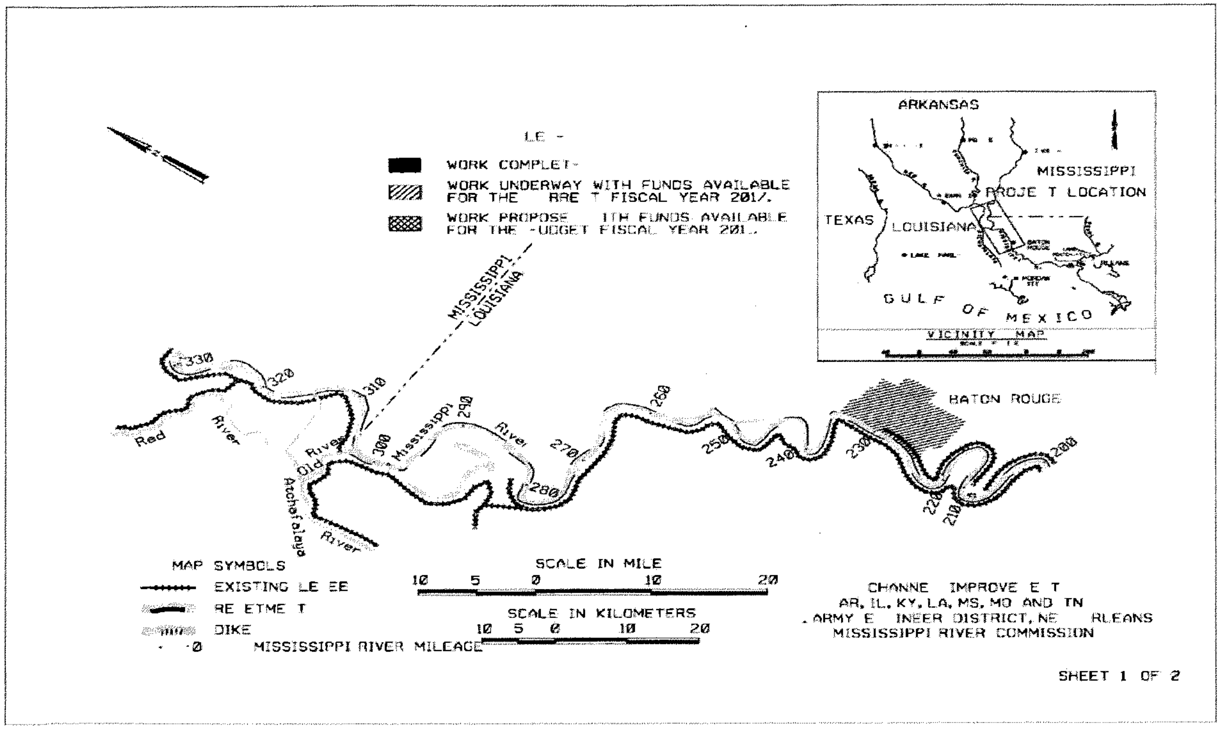
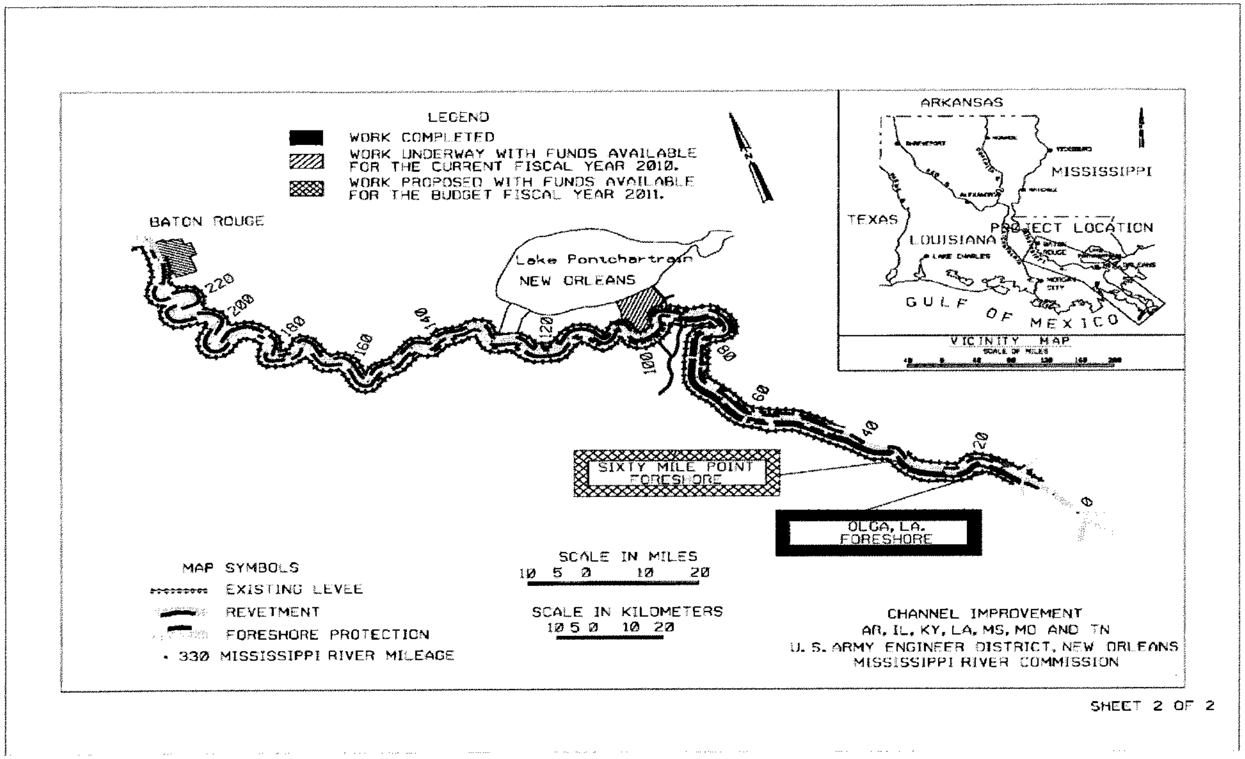
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year
Work Proposed With Funds Requested For The Budget Fiscal Year
Work Required To Complete Project After The Budget Fiscal Year
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 3 OF 4


MAP SYMBOLS
EXISTING LEVEE
REVETMENT
DIKE
N
LOUISIANA
MISSISSIPPI
Natchez
River
Waterproof, La (D)
Fritz Island, La (D)
Bougere, La (R)
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
NOTE:
(R) = Revetment
(D) = Dike
ARKANSAS
LOUISIANA
MISSISSIPPI
Lake Providence
Monroe
Vicksburg
Natchez
Memphis
Greenville
Shreveport
Alexandria
Baton Rouge
PROJECT LOCATION
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year
Work Proposed With Funds Requested For The Budget Fiscal Year
Work Required To Complete Project After The Budget Fiscal Year
CHANNEL IMPROVEMENT
MISSISSIPPI RIVER
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 4 OF 4


LE -
WORK COMPLET-
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE RRE T FISCAL YEAR 201/.
WORK PROPOSE ITH FUNDS AVAILABLE FOR THE -UDGET FISCAL YEAR 201.
ARKANSAS
MISSISSIPPI
PROJE T LOCATION
TEXAS
LOUISIANA
GULF OF MEXICO
VICINITY MAP
MISSISSIPPI
LOUISIANA
BATON ROUGE
Red
River
Old
River
Atchafalaya
River
Mississippi
River
330
320
310
300
290
280
270
260
250
240
230
220
210
200
MAP SYMBOLS
EXISTING LE EE
RE ETME T
DIKE
· ·0 MISSISSIPPI RIVER MILEAGE
SCALE IN MILE
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
CHANNE IMPROVE E T
AR, IL, KY, LA, MS, MO AND TN
. ARMY E INEER DISTRICT, NE RLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 2


LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2010.
WORK PROPOSED WITH FUNDS AVAILABLE FOR THE BUDGET FISCAL YEAR 2011.
N
BATON ROUGE
Lake Pontchartrain
NEW ORLEANS
220
200
180
160
140
120
100
80
60
40
20
0
SIXTY MILE POINT FORESHORE
OLGA, LA. FORESHORE
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
SCALE OF MILES
MAP SYMBOLS
EXISTING LEVEE
REVETMENT
FORESHORE PROTECTION
• 330 MISSISSIPPI RIVER MILEAGE
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
CHANNEL IMPROVEMENT
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 2

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, TN - Construction

PROJECT: Mississippi River Levees, Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri and Tennessee (Continuing)

LOCATION: The Mississippi River Levee system on the west bank extends from Allenville, Missouri, on the Little River Diversion Channel generally southward to the vicinity of Venice, Louisiana, and on the east bank from Hickman, Kentucky, to opposite Venice, Louisiana, except where interrupted by hills and tributary streams. Included in the system are the levees which protect Mounds, Mound City and Cairo, Illinois, and the New Madrid Levee and Floodway.

DESCRIPTION: The plan of improvement provides for raising, strengthening, and in some cases, extending existing levees to provide protection against the project flood. This feature includes 1,519.5 miles of levees and 14.8 miles of floodwall. All work is programmed.

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968, and PL 92-222.

REMAINING BENEFIT-REMAINING COST RATIO: Validated Remaining Benefit – Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 per cent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

INITIAL BENEFIT-COST RATIO: This project feature of the Main Stem system was authorized in Fiscal Year 1928 and initial construction funds were provided in Fiscal Year 1928. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The last comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Total Appropriation Requirement		$2,529,121,000	
Future Non-Federal Reimbursement		674,000	
Estimated Federal Cost (Ultimate)		2,528,447,000	
Estimated Non-Federal Cost		$ 83,653,000	
Cash Contributions	$ 3,331,000		
Other Costs	79,648,000		
Reimbursement	674,000		
Recreation Facilities $674,000			
Total Estimated Project Cost		$2,828,600,000	
Allocations to 30 September 2007		$1,221,328,000	
Allocation for FY 2008		51,750,000	
Allocation for FY 2009		64,547,000	
Recovery Act Allocations To Date		7,300,000	
Conference Allowance for FY 2010		44,702,000	
Allocation for FY 2010		44,702,000	
Allocations through 30 September 2010		1,389,627,000	55
Allocation Requested for FY 2011		29,150,000	56
Programmed Balance to Complete After FY 2011		1,109,670,000	
Unprogrammed Balance to Complete After FY 2011		0	

STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	94	TBD

PHYSICAL DATA

Channel and Canals	72 miles
Levees:	
Average Height	20-35 feet
Length	1,609.8 miles
Floodwalls:	
Average Height	14-23 feet
Length	14.8 miles
Levee Berms	653.1 miles
Levee Roads	1,535.3 miles
Pumping Stations	5

JUSTIFICATION: The Mississippi River Levee system is one of several Main Stem components, which together comprise the plan of improvement for the control of floods on the Mississippi River. The components are: Mississippi River Levees, Channel Improvement, South Bank Arkansas and South Bank Red River Levees, the Atchafalaya Basin, Atchafalaya Basin Floodway System, Old River and a few miscellaneous items. Because the benefits of the Mississippi River Levees derive from the way in which they operate together with the other Main Stem components when the Mississippi River floods, the benefit-cost ratio is a composite one that covers the entire plan.

The Mississippi River Levee System provides protection to 23,620 square miles and partial protection to an additional 3,780 square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is $193.3 billion in 2009 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $14.6 billion in damages in 2009 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2009 prices, damages without the projects would have been $52.9 billion and damages prevented would have been $50.0 billion.

The benefit-cost ratio was derived by measuring the total benefits credited to those Main Stem components against their total cost. Average annual remaining benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	$ 1,069,317,857	$ 363,019,604
Navigation	216,151,028	95,783,058
Area Redevelopment	18,964,939	915,984
Recreation	2,622,414	2,390,516
Total	$1,307,056,238	$ 462,109,162

FISCAL YEAR 2010: Current funds are being used as follows:

Continue:	
Lands and damages	1,100,000
Award (Fully Fund):	
Delta Ms Relief Wells	2,500,000
Above Luxora, AR Relief Wells	2,230,000
Bayou Vidal-Elkridge, Item 420-R	13,900,000
Vidalia-Moreville, LA Item 365-R	8,500,000
Carolina-Valewood Item 502-L Claim	900,000
Baton Rouge Front Phase III	1,400,000
Planning, Engineering, and Design	9,525,000
Supervision and Administration	4,647,000
Total	$44,702,000

In the event of emergency conditions, such as levee slides, sand boils, bank erosion or other events which threaten levee integrity, the Corps intends to reallocate the funds identified on the priorities presented below to accomplish necessary emergency actions.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue:	
Lands and Damages	175,000
Cultural Resources Preservation	125,000
Award (Fully Fund):	
Linda, MO Relief Wells	2,000,000
Vidalia-Moreville, Item 357-R	8,000,000
Duncan Pleasant Seepage	3,200,000
Baton Rouge Front Phase III	550,000
Avondale Ramps	4,050,000
LPV Polder Completion (MR&T Grade)	1,500,000
WBR Polder Completion (MR&T Grade)	2,000,000
Planning, Engineering, and Design	3,200,000
Supervision and Administration	4,350,000
Total	$29,150,000

NON-FEDERAL COST: In accordance with the Flood Control Acts of 1928, 1936, 1938, 1941, 1946, 1950, 1954, 1962, 1965, 1968 and PL 92-222, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$80,000,000	
Minor maintenance of all flood control works after their completion, except controlling a regulating spillway structures, including special relief levees; maintenance includes normally such matters as cutting grass, removal of weeds, local drainage and minor repairs to mainline river levees.		4,805,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,331,000	
Other (levee and revetment construction)	$322,000	
Total Non-Federal Costs	$83,653,000	$4,805,000

STATUS OF LOCAL COOPERATION: It is estimated that local interests had spent approximately $292,000,000 for flood protection prior to the Act of 15 May 1928. After passage of the Act, the 37 levee districts along the Mississippi River adopted resolutions assuring the United States that the requirements of local cooperation will be met. These local interests have acquired all rights-of-way for work completed and underway and will try to provide the rights-of-way for work scheduled for Fiscal Year 2011. Some levee boards are having difficulty in providing right-of-way when requested, even for construction work in areas where the existing levees are farthest below the authorized grade. Supplemental assurances covering the requirements of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646) have been accepted for Main Stem Mississippi River Levees in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee.

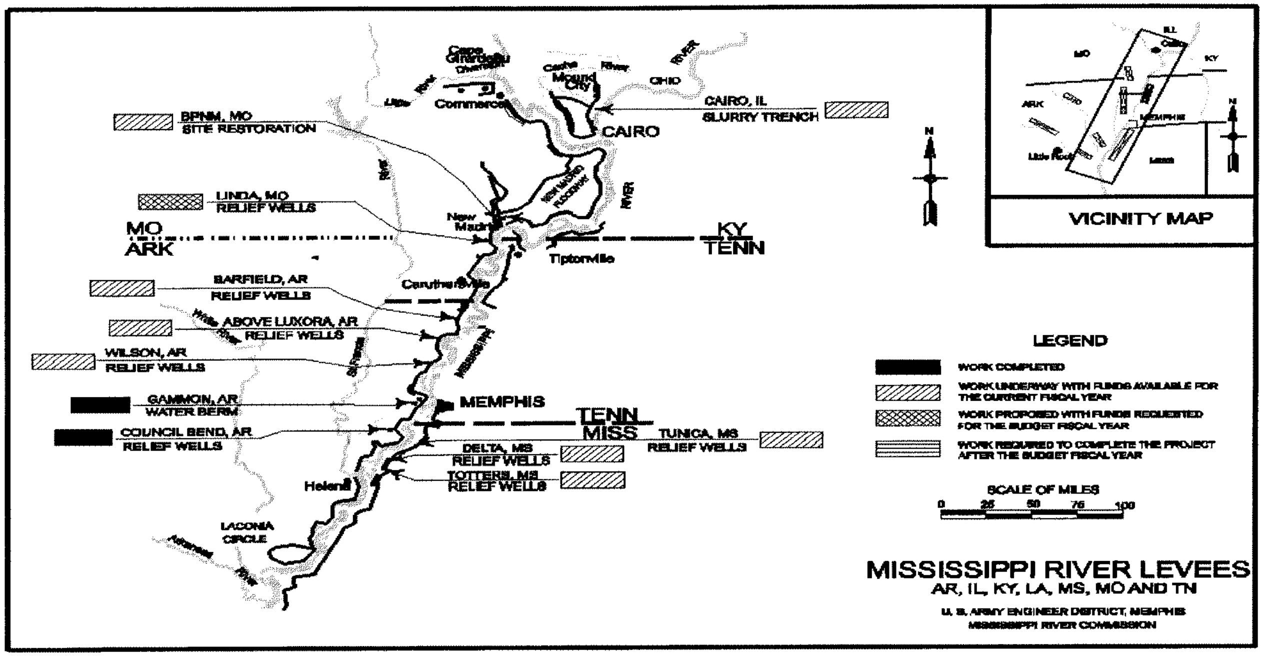
Assurances of local cooperation for the recreation facilities at Warfield Point, Mississippi, were accepted on 14 October 1969. Supplemental assurances covering the River and Harbor Act of 1970 (PL 91-611) and PL 91-646 were accepted 7 August 1972. Assurances have not as yet been requested for the recreation facilities at Mississippi River State Park, Arkansas.

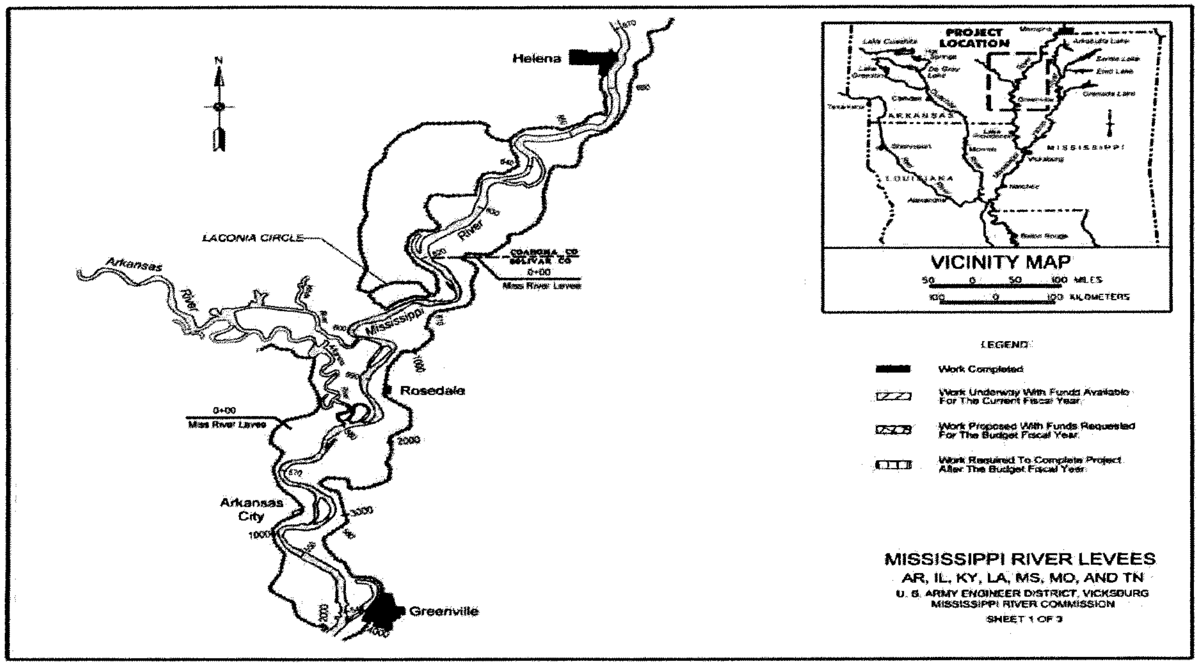
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $2,528,447,000 is an increase of $45,747,000 from the latest estimate ($2,482,700,000) presented to Congress (FY 2010). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	50,494,000
Post Contract Award and Other Estimating Adjustments	-11,438,000
Price Escalation on Real Estate	-18,556,000
Price Escalation on Design Costs	0
Additional Deficiencies Identified	25,247,000
Total	$45,747,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 16 April 1976. A Supplemental Environmental Impact Statement for the project was completed and the Record of Decision was signed on 5 October 1998. The adequacy of the Supplemental Environmental Impact Statement was challenged but upheld by the United States District Court for the Eastern District of Louisiana. The Fifth Circuit Court of Appeals on October 23, 2000, affirmed the district court's grant of summary judgment to the Government.

OTHER INFORMATION: Initial construction funds were appropriated in Fiscal Year 1928.


BPNM, MO
SITE RESTORATION
LINDA, MO
RELIEF WELLS
MO
ARK
BARFIELD, AR
RELIEF WELLS
ABOVE LUXORA, AR
RELIEF WELLS
WILSON, AR
RELIEF WELLS
GAMMON, AR
WATER BERM
COUNCIL BEND, AR
RELIEF WELLS
Helena
LACONIA
CIRCLE
Cape Girardeau
Commerce
Mound City
CAIRO
OHIO
RIVER
CAIRO, IL
SLURRY TRENCH
New Madrid
Tiptonville
KY
TENN
Caruthersville
MEMPHIS
TENN
MISS
TUNICA, MS
RELIEF WELLS
DELTA, MS
RELIEF WELLS
TOTTERS, MS
RELIEF WELLS
N
VICINITY MAP
ILL
MO
KY
ARK
MEMPHIS
Little Rock
LEGEND
WORK COMPLETED
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR
SCALE OF MILES
0
25
50
75
100
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO AND TN
U. S. ARMY ENGINEER DISTRICT, MEMPHIS
MISSISSIPPI RIVER COMMISSION


N
Helena
LACONIA CIRCLE
Arkansas River
Mississippi River
COAHOMA CO
BOLIVAR CO
0+00
Miss River Levee
Rosedale
0+00
Miss River Levee
1000
2000
3000
Arkansas City
1000
2000
4000
Greenville
PROJECT LOCATION
ARKANSAS
LOUISIANA
MISSISSIPPI
VICINITY MAP
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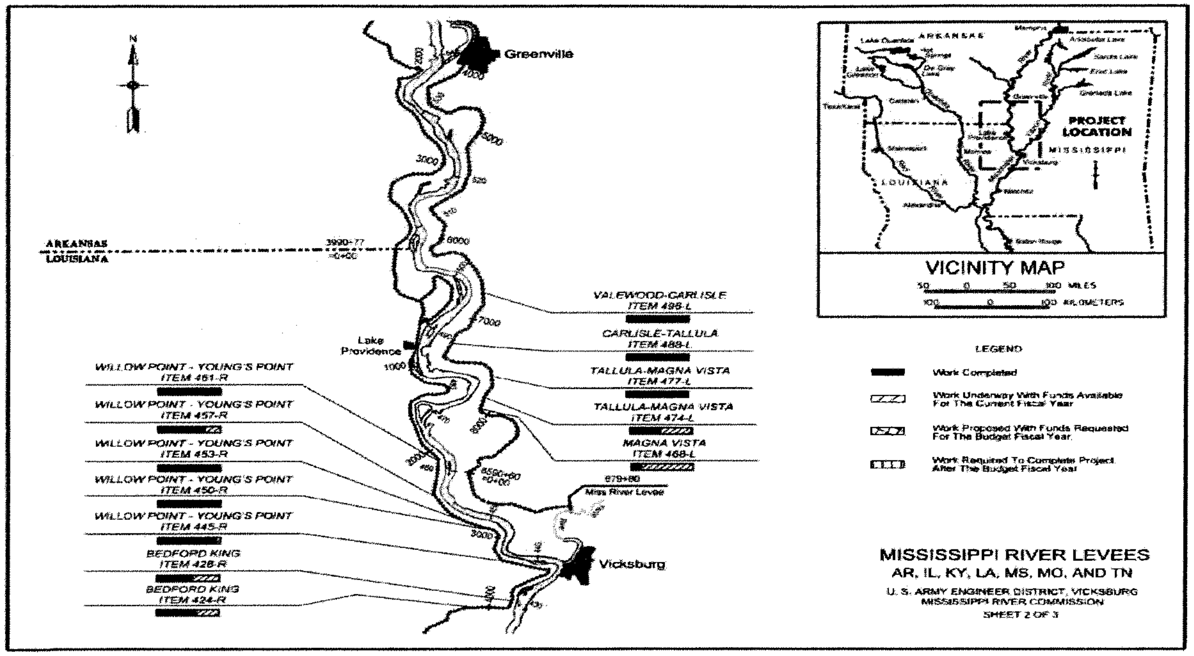
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year
Work Proposed With Funds Requested For The Budget Fiscal Year
Work Required To Complete Project After The Budget Fiscal Year
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 1 OF 3


Greenville
2000
4000
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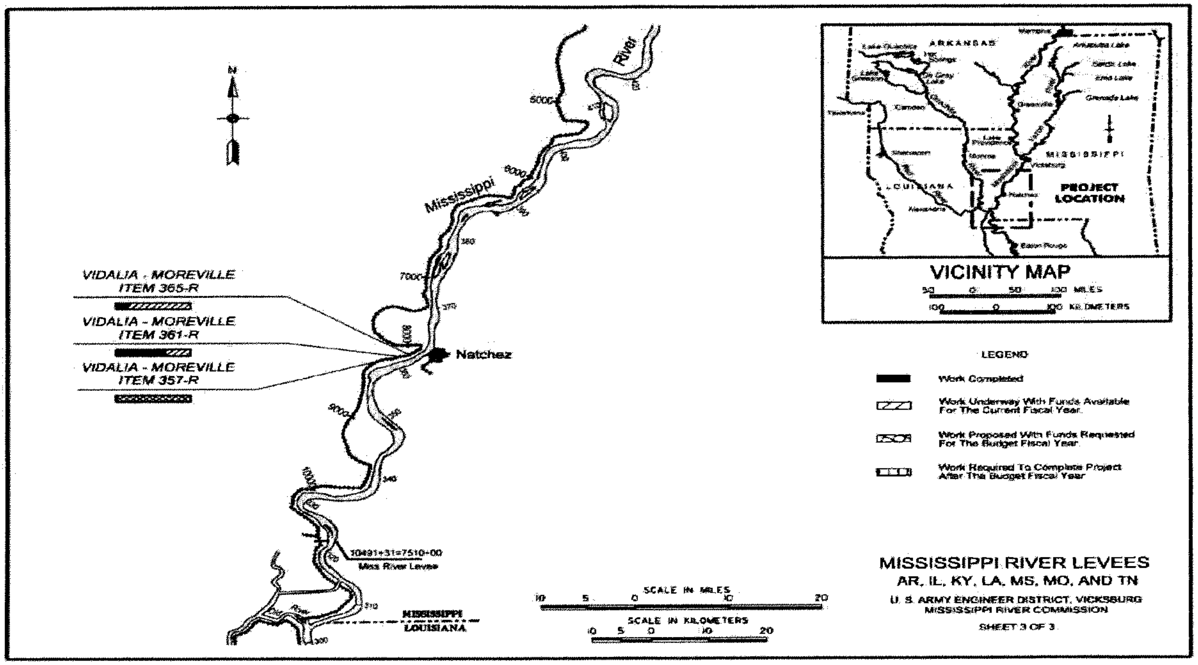
3000
520
510
6000
ARKANSAS
LOUISIANA
3990+77
=0+00
7000
Lake Providence
1000
VALEWOOD-CARLISLE
ITEM 498-L
CARLISLE-TALLULA
ITEM 488-L
TALLULA-MAGNA VISTA
ITEM 477-L
TALLULA-MAGNA VISTA
ITEM 474-L
MAGNA VISTA
ITEM 468-L
WILLOW POINT - YOUNG'S POINT
ITEM 461-R
WILLOW POINT - YOUNG'S POINT
ITEM 457-R
WILLOW POINT - YOUNG'S POINT
ITEM 453-R
WILLOW POINT - YOUNG'S POINT
ITEM 450-R
WILLOW POINT - YOUNG'S POINT
ITEM 445-R
BEDFORD KING
ITEM 428-R
BEDFORD KING
ITEM 424-R
8000
2000
8590+60
=0+00
879+80
Miss River Levee
3000
Vicksburg
N
ARKANSAS
Memphis
Lake Ouachita
Hot Springs
Lake Greeson
De Gray Lake
Camden
Texarkana
Arkabutla Lake
Sardis Lake
Enid Lake
Grenada Lake
Greenville
PROJECT LOCATION
MISSISSIPPI
Lake Providence
Monroe
Shreveport
Vicksburg
LOUISIANA
Alexandria
Natchez
Baton Rouge
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 3


N
River
Mississippi
5000
6000
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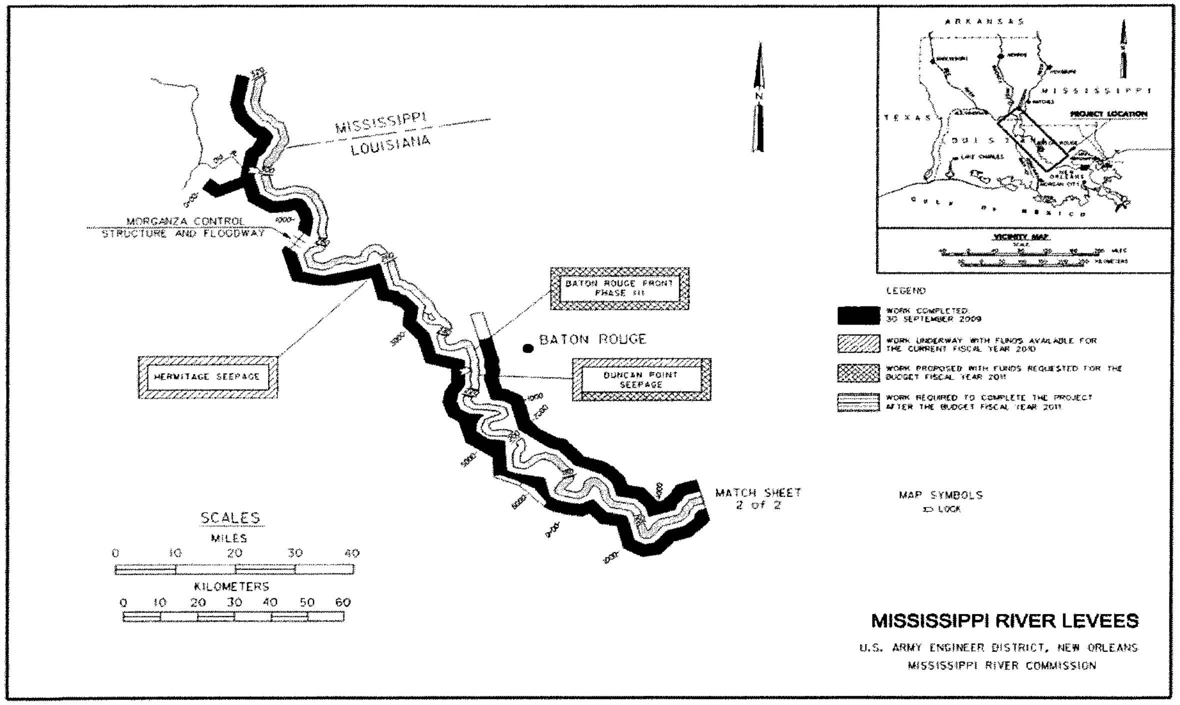
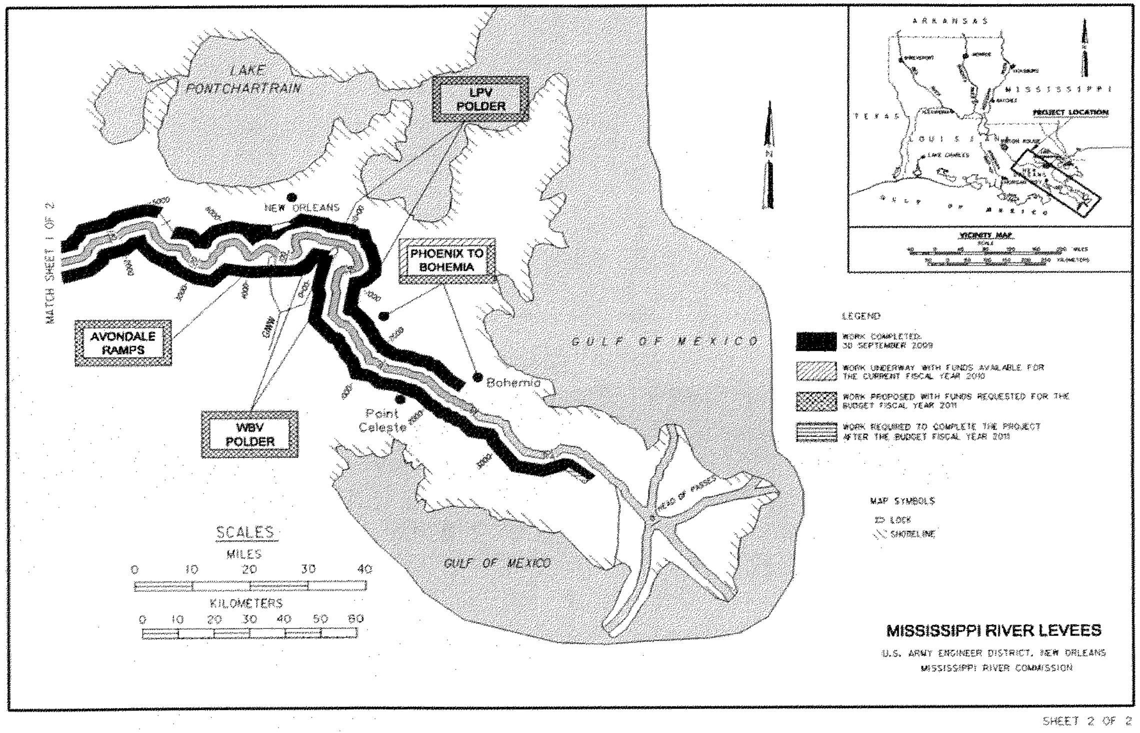
380
370
360
350
340
310
300
Natchez
VIDALIA - MOREVILLE
ITEM 365-R
VIDALIA - MOREVILLE
ITEM 361-R
VIDALIA - MOREVILLE
ITEM 357-R
10491+31=7510+00
Miss River Levee
MISSISSIPPI
LOUISIANA
SCALE IN MILES
10 5 0 10 20
SCALE IN KILOMETERS
10 5 0 10 20
ARKANSAS
MISSISSIPPI
LOUISIANA
Memphis
Arkabutla Lake
Sardis Lake
Enid Lake
Grenada Lake
Greenville
Lake Providence
Monroe
Vicksburg
Natchez
Alexandria
Baton Rouge
Camden
Texarkana
Shreveport
PROJECT LOCATION
VICINITY MAP
50 0 50 100 MILES
100 0 100 KILOMETERS
LEGEND
Work Completed
Work Underway With Funds Available For The Current Fiscal Year.
Work Proposed With Funds Requested For The Budget Fiscal Year.
Work Required To Complete Project After The Budget Fiscal Year
MISSISSIPPI RIVER LEVEES
AR, IL, KY, LA, MS, MO, AND TN
U. S. ARMY ENGINEER DISTRICT, VICKSBURG
MISSISSIPPI RIVER COMMISSION
SHEET 3 OF 3



MISSISSIPPI RIVER LEVEES

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 1 OF 2


LAKE PONTCHARTRAIN
LPV POLDER
NEW ORLEANS
PHOENIX TO BOHEMIA
AVONDALE RAMPS
WBV POLDER
Bohemia
Point Celeste
GULF OF MEXICO
GULF OF MEXICO
HEAD OF PASSES
MATCH SHEET 1 OF 2
N
SCALES
MILES
0 10 20 30 40
KILOMETERS
0 10 20 30 40 50 60
ARKANSAS
TEXAS
LOUISIANA
MISSISSIPPI
LAKE CHARLES
BATON ROUGE
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
SCALE
MILES
KILOMETERS
LEGEND
WORK COMPLETED 30 SEPTEMBER 2009
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR 2011
MAP SYMBOLS
LOCK
SHORELINE
MISSISSIPPI RIVER LEVEES
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION
SHEET 2 OF 2

ENVIRONMENT

INVESTIGATIONS

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Investigations, Fiscal Year 2011

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – Continuing (Feasibility)							
Memphis Metropolitan Area, Storm Water Management Study, TN & MS Memphis District	3,150,000	270,000	146,000	33,000	97,000	100,000	2,504,000

The purpose of the Memphis Metropolitan Storm Water Management study is to evaluate the need for improvements for flood control, ecosystem restoration, water quality, and related purposes associated with storm water runoff and management in the area. The study area includes all or part of five counties: Shelby, Tipton and Fayette Counties in Southwest Tennessee, and DeSoto and Marshall Counties in Northwest Mississippi. The area encompasses all or part of six major drainage basins which are tributaries to the Mississippi River: Hatchie River, Loosahatchie River, Wolf River, Nonconnah Creek, Horn Lake Creek, and Coldwater River and includes approximately 2,600 square miles and drain an urban area of over one million people. Continuing problems with stormwater runoff, stream stability, water quality, wetland hydrology and aquatic habitat prompted the study. The Memphis Metropolitan Area Storm Water Management, TN & MS reconnaissance study recognized the likelihood of multiple feasibility studies with multiple sponsors. Three feasibility studies have been identified to date. The first will address restoration of Indian Creek, a channelized tributary of the Hatchie River. The stream is unstable, with eroding banks, diminished riparian areas and wetlands, and severely degraded aquatic habitat. The Nature Conservancy and the West Tennessee River Basin Authority have expressed a specific interest in sponsoring the project. The second will address flood management and ecosystem restoration in the Loosahatchie River Basin within Fayette County. Development in the area has caused problems with stormwater management and erosion. The streambed is unstable, wetlands are being dewatered and water quality is compromised. Fayette County and the West Tennessee River Basin Authority have expressed interest in sponsoring the project. The third will address establishment of gradient control in the mainstem of the Hatchie River to restore bank conditions, aquatic habitat and wetland hydrology. The West Tennessee River Basin Authority has expressed an interest in being a sponsor. Other feasibility studies may be identified at a later date. Other organizations including the Tennessee Department of Transportation, Chickasaw Basin Authority, Ducks Unlimited and the Audubon Society have expressed interest in various elements of the project and may be willing to sponsor part of the currently identified feasibility studies or other feasibility studies ensuing from this reconnaissance effort.

The reconnaissance report was approved in November 2009. The reconnaissance phase is scheduled for completion in June 2010. The feasibility phase is scheduled to be initiated in July 2010 with execution of the Feasibility Cost Share Agreement (FCSA) for the first study. Fiscal Year 2010 and carryover funds are available to initiate the feasibility study. Fiscal Year 2011 funds will be used to continue the first study. The first feasibility study is scheduled for completion in July 2012. The total estimated cost of the feasibility phase is $5,700,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,000,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	2,850,000
Feasibility Phase (Non-Federal)	2,850,000

CONSTRUCTION

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Construction

PROJECT: Atchafalaya Basin Floodway System, Louisiana (Continuing)

LOCATION: The project is located in south-central Louisiana and encompasses approximately 595,000 acres in an area bounded on the north by south right-of-way line of the Union Pacific Railroad (just south of US Hwy 190 passing through Krotz Springs, LA); on the south by Morgan City; and on the east and west by the East and West Atchafalaya Basin Protection Levees.

DESCRIPTION: The plan of improvement consists of acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway for flood control purposes, environmental protection purposes, developmental control purposes, and public access; acquisition of real estate interest, excluding minerals, in the Lower Atchafalaya Floodway, for recreation developmental purposes and construction of several campgrounds, boat launching ramps, visitor's center, other recreational facilities and initial construction of two pilot water management units, including construction of miscellaneous canal closures and water circulation improvements, and implementation of future units at the discretion of the Chief of Engineers. These project features will be implemented in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986. All work is programmed.

AUTHORIZATION: Supplemental Appropriations Act, 1985; Water Resources Development Act, 1986; Energy and Water Development Appropriations Act, 1988; Energy and Water Development Appropriations Act, 1991; Energy and Water Development Appropriations Act, 1997; and Water Resources Development Act, 2000, and Water Resources Development Act of 2007.

REMAINING BENEFIT–REMAINING COST RATIO: Validated Remaining Benefit-Remaining Cost Ratio not available.

TOTAL BENEFIT-COST RATIO: 3.5 to 1 at 7 per cent. The benefit-cost ratio is based on all features which comprise the Main Stem system of the Mississippi River and Tributaries project.

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INITIAL BENEFIT-COST RATIO: This project is a feature of the Main Stem system that was authorized in Fiscal Year 1928. Initial funds for the acquisition of real estate interests for flood control, developmental control, environmental protection, and public access were provided in 1985. The authorized comprehensive review of the Mississippi River and Tributaries project, contained in House Document 308/88/2, as updated to reflect 1965 conditions and price levels, is considered to be the base estimate for the Main Stem system. The benefit-cost ratio for the Main Stem components computed for the base estimate was 7.9 to 1.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation approved in October 1979 at 1979 price levels. The latest comprehensive analysis was conducted in 1974. The 1979 analysis is the same as the 1974 analysis except that certain undocumented benefit categories were eliminated and 1979 prices were used.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$367,574,000	
Estimated Non-Federal Cost		$ 73,308,000	
Cash Contribution	$71,060,250		
Other Costs	$2,447,750		
Total Estimated Project Cost		$440,882,000	
Allocations to 30 September 2007		$125,783,000	
Allocations for FY 2008		1,771,000	
Allocation for FY 2009		2,025,000	
Recovery Act Allocations To Date		3,975,000	
Conference Allowance for FY 2010		2,898,000	
Allocation for FY 2010		2,898,000	
Allocations through FY2010		136,452,000	37
Allocation Requested for FY 2011		2,631,000	37
Programmed Balance to Complete after FY2011		228,491,000	
Unprogrammed Balance to Complete after FY2011		0	

STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Land Acquisition	60	TBD
Recreation	4	TBD
Management Units	5	TBD
Entire Project	33	TBD

PHYSICAL DATA

Lands and Damages: 388,000 Acres
Recreational Facilities

3 campgrounds – developed
7 campgrounds – primitive
15 2-lane boat launching ramps
1 Visitors Center
Trails
Water Management Units
Miscellaneous canal closures and water circulation channels

JUSTIFICATION: The Atchafalaya Basin Floodway System features result from a comprehensive study with a view to developing a plan for the enhancement, management, and preservation of the water quality and related land resources of the Atchafalaya River Basin, Louisiana, which would include provisions for reductions of siltation, improvement of water quality, and possible improvements of the area for commercial and sport fishing. The features of the Atchafalaya Basin Floodway System are compatible with the current flood control plan, and include real estate acquisition of lands, flowage easements, and developmental control easements in the floodway south of Krotz Springs, Louisiana, to ensure unhampered use of the floodway during major floods; and environmental protection easements to protect the basin's environmental resources. Provision of additional public access and several campgrounds, boat launching ramps, visitors' center, and other recreational facilities are also authorized. The water management units' feature involves making use of distinct and unique hydrologic units within the floodway to improve historical (where practical) overflow conditions and thereby enhance aquatic ecosystem productivity.

The value of lands and improvements protected by the Main Stem System authorized works against the design flood is $193.3 billion in 2009 dollars. This consists of 226,000 residential acres which include the City of New Orleans, 45,000 acres of commercial lands, 10 million acres of agricultural lands, and 6.5 million acres of woodland and marshland. The area subject to flooding by project flood assuming no protective works is 22.7 million acres. The area that will be provided complete protection by the completed project is 15.1 million acres.

The maximum flood of record was the 1927 flood which overflowed about 26,000 square miles, caused the deaths of 214 people, rendered 637,000 people temporarily homeless, and caused property damages of $347.0 million. This would be equivalent to $14.6 billion in damages in 2009 prices.

The next flood of magnitude was the 1973 flood which overflowed 16,875 square miles (10.8 million acres), caused the death of 28 people, and displaced approximately 45,300 persons. The deaths and displacements of persons would have been significantly higher without the project in place. Without Federal projects, approximately 19.8 million acres would have been inundated. Total damages with existing projects in operation were $643 million (1973 price levels). Damages without projects would have been $11.3 billion and total damages prevented by projects amounted to $10.6 billion. Expressed in 2009 prices, damages without the projects would have been $52.9 billion and damages prevented would have been $50.0 billion.

Measuring the total benefits credited to those Main Stem components against their total cost derived the benefit-cost ratio. Average annual benefits for the composite of Main Stem features are as follows:

Annual Remaining Benefits	Amount @ 2.5 %	Amount @ 7%
Flood Control	$ 1,069,317,857	$ 363,019,604
Navigation	216,151,028	95,783,058
Area Redevelopment	18,964,939	915,984
Recreation	2,622,414	2,390,516
Total	$1,307,056,238	$ 462,109,162

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue:	
Buffalo Cove Construction	$2,365,000
Water Management Units	533,000
Total	$2,898,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Buffalo Cove Construction & Monitoring	1,100,000
Henderson Management Unit (PED)	500,000
Lands Acqusition and LRR	581,000
DSEIS, Buffalo Cove, and Henderson Features	450,000
Total	$2,631,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay one-half of the separable cost allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	$ 48,577,000	$ 1,081,700
Provide lands, easements, rights-of-way, and dredged material disposal areas for recreation.	2,247,750	0
Pay 25 percent of construction, operation, and maintenance of Water Management Units.	22,483,250	4,271,818
Total Non-Federal Costs	$ 73,308,000	$5,353,518

The non-Federal sponsor has agreed to voluntarily contribute 25 percent of construction costs for Water Management Units. Buffalo Cove Water Management Unit construction has been exempted from non-Federal sponsor cost sharing.

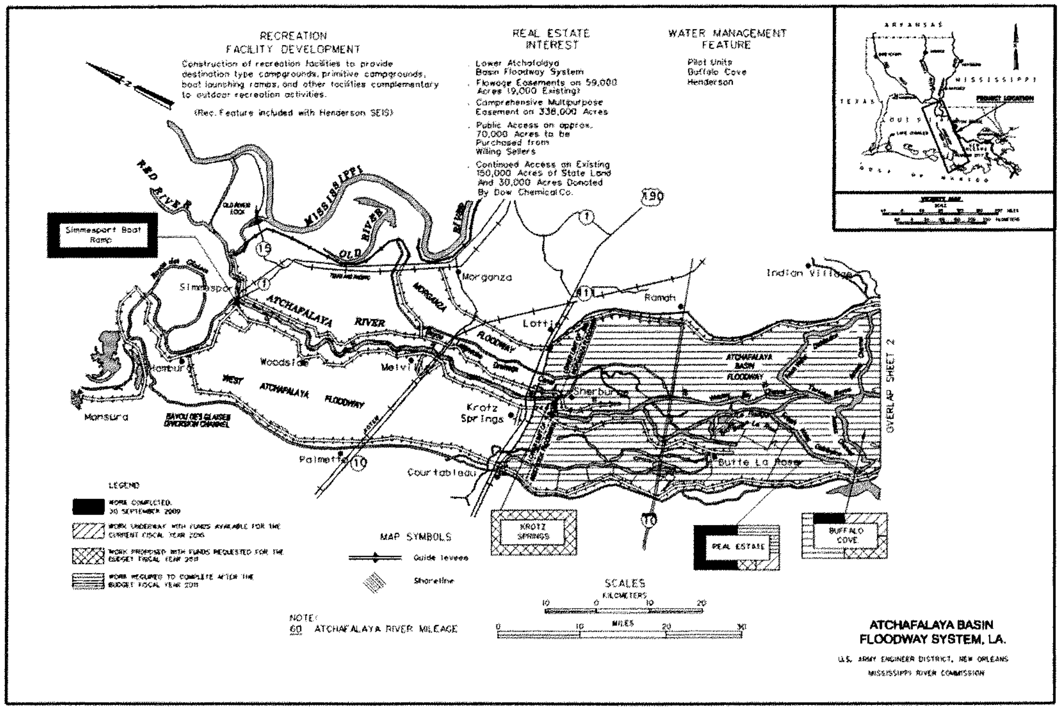
STATUS OF LOCAL COOPERATION: The Avoyelles Parish Police Jury is the non-Federal sponsor for the Simmesport Boat Ramp and the PCA was executed on 18 April 2001. The State of Louisiana has provided a letter of intent supporting the recreation feature of the project and agrees to its cost sharing requirements. The State designated the Department of Natural Resources to be the lead State agency to represent the State in the implementation of the project. Additional sponsors, St. Mary Parish, serves as local sponsor for Myette Point Boat Landing and the PCA was executed on 18 May 2004. The State of Louisiana, Department of Natural Resources, is also serving as the sponsor for the management units. The PCA for the Buffalo Cove management unit was executed on 16 May 2005.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $367,574,000 is a decrease of $19,792,000 from the latest estimate ($387,366,000) presented to Congress (Fiscal Year 2010). This change includes the following items:

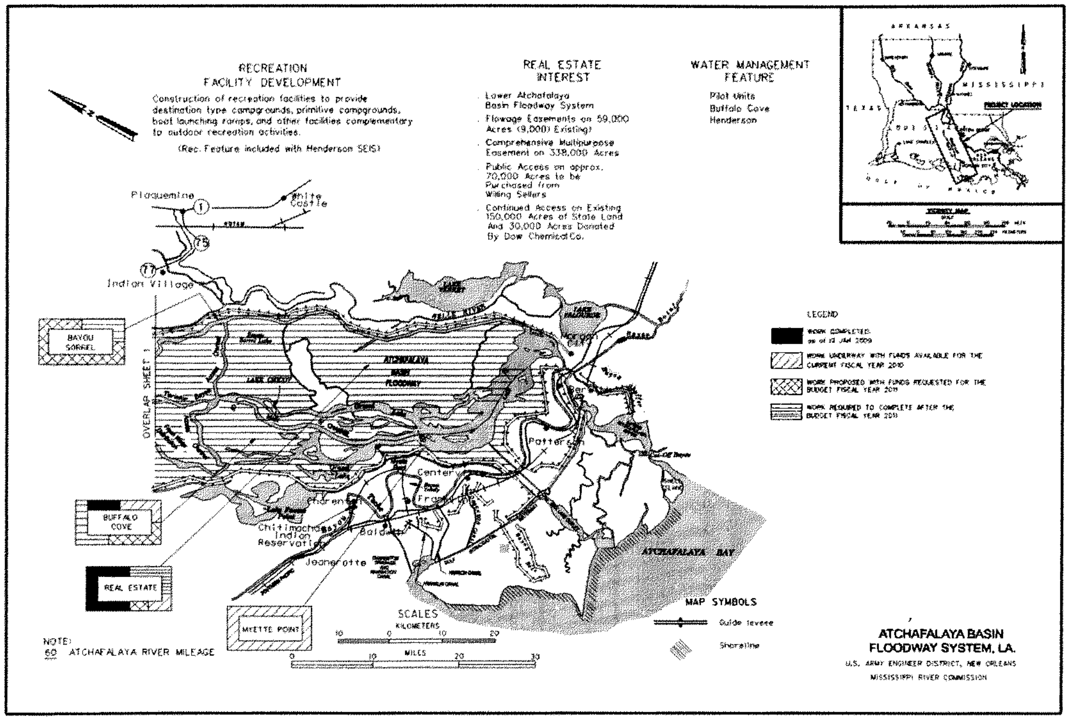
Item	Amount
Adjustments of feature costs	-$19,792,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency on 20 August 1982. A Supplemental Environmental Impact Statement (SEIS) for Henderson Lake Management Unit and Recreation Feature (combined) has been initiated in fiscal year 2008. A Supplemental Environmental Impact Statement (SEIS) for Buffalo Cove, Flat Lake, Beau Bayou, Cocodrie Swamp has also been initiated with completion paralleling the 5 year monitoring program for Buffalo Cove.

OTHER INFORMATION: First Fiscal Year project funds were appropriated was 1985.


RECREATION
FACILITY DEVELOPMENT
Construction of recreation facilities to provide destination type campgrounds, primitive campgrounds, boat launching ramps, and other facilities complementary to outdoor recreation activities.
(Rec. Feature included with Henderson SEIS)
REAL ESTATE
INTEREST
. Lower Atchafalaya Basin Floodway System
. Flowage Easements on 59,000 Acres 19,000 Existing?
. Comprehensive Multipurpose Easement on 338,000 Acres
. Public Access on approx. 70,000 Acres to be Purchased from Willing Sellers
. Continued Access on Existing 150,000 Acres of State Land And 30,000 Acres Donated By Dow Chemical Co.
WATER MANAGEMENT
FEATURE
Pilot Units
Buffalo Cove
Henderson
ARKANSAS
MISSISSIPPI
TEXAS
GULF OF MEXICO
PROJECT LOCATION
VICINITY MAP
Simmesport Boat Ramp
RED RIVER
MISSISSIPPI
OLD RIVER
RIVER
OLD RIVER LOCK
Simmesport
Morganza
MORGANZA
FLOODWAY
ATCHAFALAYA
RIVER
Lottie
Ramah
Indian Village
Woodside
Melville
Hamburg
WEST
ATCHAFALAYA
FLOODWAY
Mansura
BAYOU DES GLAISES DIVERSION CHANNEL
Krotz Springs
Sherburne
ATCHAFALAYA BASIN FLOODWAY
Butte La Rose
Palmetto
Courtableau
OVERLAP SHEET 2
19
1
190
10
KROTZ SPRINGS
REAL ESTATE
BUFFALO COVE
LEGEND
WORK COMPLETED 30 SEPTEMBER 2009
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2011
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2011
MAP SYMBOLS
Guide levees
Shoreline
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
SCALES
KILOMETERS
10 0 10 20
MILES
0 10 20 30
ATCHAFALAYA BASIN
FLOODWAY SYSTEM, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 1 OF 2


RECREATION
FACILITY DEVELOPMENT
Construction of recreation facilities to provide destination type campgrounds, primitive campgrounds, boat launching ramps, and other facilities complementary to outdoor recreation activities.
(Rec. Feature included with Henderson SEIS)
REAL ESTATE
INTEREST
. Lower Atchafalaya Basin Floodway System
. Flowage Easements on 59,000 Acres (9,000) Existing)
. Comprehensive Multipurpose Easement on 338,000 Acres
. Public Access on approx. 70,000 Acres to be Purchased from Willing Sellers
. Continued Access on Existing 150,000 Acres of State Land And 30,000 Acres Donated By Dow Chemical Co.
WATER MANAGEMENT
FEATURE
Pilot Units
Buffalo Cove
Henderson
ARKANSAS
MISSISSIPPI
TEXAS
PROJECT LOCATION
GULF OF MEXICO
VICINITY MAP
Plaquemine
White Castle
1
75
77
Indian Village
BAYOU SORREL
OVERLAP SHEET 1
LAKE VERRET
BELLE RIVER
LAKE PALOURDE
Morgan City
Berwick
ATCHAFALAYA BASIN FLOODWAY
LAKE CHICOT
Patterson
Centerville
Franklin
Charenton
Chitimacha Indian Reservation
Baldwin
Jeanerette
ATCHAFALAYA BAY
BUFFALO COVE
REAL ESTATE
MYETTE POINT
LEGEND
WORK COMPLETED as of 13 JAN 2009
WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR 2011
WORK REQUIRED TO COMPLETE AFTER THE BUDGET FISCAL YEAR 2011
MAP SYMBOLS
Guide levee
Shoreline
SCALES
KILOMETERS
10 0 10 20
MILES
0 10 20 30
NOTE:
60 ATCHAFALAYA RIVER MILEAGE
ATCHAFALAYA BASIN
FLOODWAY SYSTEM, LA.
U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
MISSISSIPPI RIVER COMMISSION

SHEET 2 OF 2

MR&T
MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Atchafalaya Basin, LA

AUTHORIZATION: Flood Control Acts approved 15 May 1928, 23 April 1934, 15 June 1936, 28 Jun 1938, 18 August 1941, 24 July 1946, 17 May 1950, 3 September 1954, and 23 October 1962.

LOCATION AND DESCRIPTION: The project is located in south-central Louisiana below the latitude of Old River and west of and generally paralleling the Mississippi River. The Atchafalaya River flows through the middle of the basin. The plan of improvement consists of a leveed floodway about 15 miles wide and 110 miles long that extends generally from the latitude of Old River to the Gulf of Mexico.

RECOVERY ACT ALLOCATIONS TO DATE: $26,550,750
CONFERENCE AMOUNT FOR FY 2010: T: $11,954,000
BUDGET FOR FY 2011: M: $ 7,276,000 **O**: $ 5,122,000 **T**: $ 12,398,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $6,972,000 - Costs for operation and maintenance and repairs of locks and other structures.

FDR: $ 5,426,000 – Basic operations and periodic inspections, essential for deficiencies, cleaning and repair of Collector Pipes in the Morganza Control Structure.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Atchafalaya Basin Floodway System, LA

AUTHORIZATION: Flood Control Acts approved 15 May 1928, 23 April 1934, 15 June 1936, 28 Jun 1938, 18 August 1941, 24 July 1946, 17 May 1950, 3 September 1954, and 23 October 1962, Supplemental Appropriations Act of 1985, PL 99-88; Sections 103, 108, 601(a) and 906(e) and (f) of the Water Resources Development Act of 1986, PL 99-646, as amended by Energy and Water Development Appropriations Act of 1988, PL 100-202, 101 Stat. 1329-109; Energy and Water Development Appropriations Act of 1991, PL 101-514, 104 Stat. 2078 ; Section 315 of the Water Resources Development Act of 2000, PL, 106-541, 114 Stat. 2646; and Sections 3075 and 3076 of the Water Resources Development Act, PL 110-114, 121 Stat. 1125

LOCATION AND DESCRIPTION: The project is located in south-central Louisiana and encompasses approximately 595,000 acres in an area bounded on the north by south right-of-way line of the Union Pacific Railroad (just south of US Hwy 190 passing through Krotz Springs, LA); on the south by Morgan City; and on the east and west by the East and West Atchafalaya Basin Protection Levees. Manage, operate and protect 70,000 acres of project lands and 367,000 acres of easement lands.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: T: $ 2,446,000
BUDGET FOR FY 2011: M: $ 180,000 **O**: $1,698,000 **T**: $1,878,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FDR: N/A

Rec: $968,000 Minimal operating cost including costs of re-opening parks.

Hydro: N/A

ES: $910,000 Operate and Manage natural resources of project and easement lands.

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Baton Rouge Harbor, Devils Swamp, LA

AUTHORIZATION: Authorized by River and Harbor Act of 24 July 1946. Transferred to Flood Control, MR&T, under Flood Control Act of June 1948.

LOCATION AND DESCRIPTION: Provide a slack water channel for barge traffic and to provide an industrial expansion area for the port of Baton Rouge, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $1,750,000
CONFERENCE AMOUNT FOR FY 2010: T: $ 42,000
BUDGET FOR FY 2011: M: $ 0 **O**: $42,000 **T**: $42,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $42,000 - Surveys to determine channel conditions and time to dredge; funding ensures right of entry is granted.

FDR: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Bayou Cocodrie and Tributaries, LA

AUTHORIZATION: Authorized by Section 3 of the Flood Control Act of 1941 and Section 87 of the Water Resources Development Act of 1974.

LOCATION AND DESCRIPTION: The project is located in central Louisiana, in Rapides, Avoyelles, Evangeline and St. Landry parishes and provides for flood relief to the area tributary to lower Bayou Courtableau. The water shed extends from Alexandria to Port Barre, Louisiana. Provide for the control of floods in the lowland portions of the watersheds of Bayous Rapides, Boeuf and Cocodrie. It consists of controlled diversion of the excess flow of Bayou Rapides into the Boeuf Basin by means of the Bayou Rapides Drainage Structure, control of the flow from Bayou Lamourie (Lamourie Control Structure), diversion of excess flow of lower Bayou Boeuf into Bayou Cocodrie (Lecompte Control Structure), and the improvement of the existing channels of Bayou Cocodrie and upper Bayou Boeuf. The downstream terminus of this project was the confluence of Bayous Cocodrie and Courtableau just north of Washington, Louisiana.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: T: $ 52,000
BUDGET FOR FY 2011: M: $ 0 **O**: $47,000 **T**: $47,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FDR: $47,000 - Costs for hired labor staff to collect, manage, store and disseminate data from water level gages in support of reducing flood heights and improving drainage.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Bonnet Carre, LA

AUTHORIZATION: Flood Control Act of 15 May 1928 (PL 70-391), as amended.

LOCATION AND DESCRIPTION: The Bonnet Carre' Spillway is the southernmost floodway in the MR&T system. Located in St. Charles Parish, Louisiana, the spillway furnishes protection for the city of New Orleans and other communities about 26 miles downstream. Specifically, its use is intended, when necessary, to prevent flows from exceeding 1.25 million cubic feet per second (CFS) below the Bonnet Carre' Floodway This protection is accomplished by diverting a portion of floodwaters into Lake Pontchartrain and thence into the Gulf of Mexico, bypassing New Orleans.

RECOVERY ACT ALLOCATIONS TO DATE: $ 3,327,500
CONFERENCE AMOUNT FOR FY 2010: T: $ 3,381,000
BUDGET FOR FY 2011: M: $ 145,000 **O**: $ 2,155,000 **T**: $ 2,300,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FDR: $ 1,500,000 –Routine operation and maintenance of the project.

Rec: $ 515,000 – Accommodate visitation.

Hydro: N/A

ES: $ 285,000 - Management and maintenance of natural resources within the 7,623 acre project area.

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Channel Improvement, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: FCA 1928 (Sec 1); 1936 (Sec 1); 1938 (Sec 4); 1941 (Sec 3); 1944 (Sec 10); 1962 (Sec 203); 1965 (Sec 201, 204); 1966 (Sec 202, 203); and 1970 (Sec 207); authorized stabilization of the banks of the Mississippi River along with other improvements to provide an increase in the carrying capacity of the river and protection to lands in the delta against flooding in the Lower Mississippi River Basin.

LOCATION AND DESCRIPTION: The project is located in the Mississippi River and along its banks from the vicinity of Cairo, Illinois, to the Head of Passes, Louisiana, a distance of approximately 966 miles. The plan of improvement consists of stabilizing the banks of the river in a desirable alignment to obtain the most efficient flow characteristics for it for flood control and navigation along the Mississippi River by means of revetments, dikes, foreshore protection, and improvement dredging.

RECOVERY ACT ALLOCATIONS TO DATE: $41,908,500
CONFERENCE FOR FY 2010: T: $65,065,000
BUDGET FOR FY 2011: M: $59,950,000 **O**: $6,058,000 **T**: $66,008,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: $18,933,000 – Funding provides for maintenance dredging of the Mississippi River channel to maintain authorized navigation channel.

FDR: $47,075,000 - Funding provides for operation and maintenance (including needed repairs to existing revetment and dikes at various locations) for revetments and bank stabilization at various locations, as well as maintenance dredging along the Mississippi River.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Greenville Harbor, Mississippi

AUTHORIZATION: FCA 1928, as amended by the FCAs 1946, 1954, and WRDA 1986

LOCATION AND DESCRIPTION: The Greenville Harbor, located at Greenville, MS, provides access to the Mississippi River by way of a 250-foot-wide by 9-foot-deep channel. The harbor is located in an old bendway of the Mississippi River on Lake Ferguson, just southwest of the city of Greenville. The harbor and turning basin are 500 feet wide and 10,000 feet long, with a depth of 9 feet at the lowest river stages. The project's purpose is to provide local businesses, industries and vessels navigating the Mississippi River access to the harbor facilities at Greenville.

RECOVERY ACT ALLOCATIONS TO DATE: $27,450
CONFERENCE FOR FY 2010: T: $516,000
BUDGET FOR FY 2011: M: $7,000 **O**: $11,000 **T**: $18,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: $18,000 – funding provides for channel condition surveys for maintenance dredging to maintain a 9-foot draft channel.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: Without maintenance dredging funds, this harbor will lose project dimensions during the busiest time of the year when crops are harvested and shipped via various ports and harbors along the Mississippi River. The loss of a dependable, reliable, and safe harbor will have significant adverse impacts on the region due to the increased shipping costs by rail and trucks. The many small communities and farmers served by this harbor will be forced to seek other, more costly means to move their products.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO,and TN – Operation and Maintenance

PROJECT NAME: Helena Harbor, Phillips County, AR

AUTHORIZATION: WRDA 1986, as amended

LOCATION AND DESCRIPTION: The harbor is located in Phillips County, about five miles south of Helena, Arkansas, at mile 652 on the lower Mississippi River. The harbor is used by farm communities and other industries in this region for movement goods to and from markets. Federal maintenance is authorized. The approved channel dimensions for navigation are 9 feet deep by 300 feet wide by 3.85 miles long, with an additional 50 feet of width for berthing; a fleeting area, 100 feet by 1,000 feet; and a turning basin, 600 feet by 600 feet. The local interest is the Helena-West Helena Phillips County Port Authority.

RECOVERY ACT ALLOCATIONS TO DATE: $462,000
CONFERENCE FOR FY 2010: **T**: $ 211,000
BUDGET FOR FY 2011: **M**: $151,000 **O**: $47,000 **T**: $198,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: $198,000 – Funding provides for performance of surveys and minimum dredging requirements including labor for coordination and execution of the project.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: Inspection of Completed Works, AR, IL, KY, LA, MS, MO, and TN Maintenance

AUTHORIZATION: RHA 1899 (Sec 14 & 16). FCA 1928 and amendments.

LOCATION AND DESCRIPTION: The Inspection of Completed Works (ICW) includes inspection and monitoring of the MR&T flood control system to assure its capability to perform as designed and constructed. The MR&T projects consist of approximately 3,486 miles of levees and floodwalls (including tributary levees), flood control structures, flood control structures, floodways, drainage structures, pumping stations, flood control channels, reservoirs, dikes, and revetments. Most of the flood control features referenced above are federally constructed, but are operated and maintained by state levee districts or local governmental agencies. The ICW program includes responsibility for inspecting all of the flood control features to ensure appropriate maintenance is being performed.

RECOVERY ACT ALLOCATIONS TO DATE: $450,000
CONFERENCE FOR FY 2010: **T**: $2,563,000
BUDGET FOR FY 2011: **M**: $236,000 **O**: $1,024,000 **T**: $1,260,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A.

FRM: $1,260,000 – Funding provides for inspections and monitoring of the MR&T flood control system, flood control permitting, and levee certification.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Arkansas River, North Bank, AR

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1946, and 1965.

LOCATION AND DESCRIPTION: The flood control project is located in southeast Arkansas.

RECOVERY ACT ALLOCATIONS TO DATE: $421,000
CONFERENCE FOR FY 2010: T: $215,000
BUDGET FOR FY 2011: M: $223,000 **O**: $0 **T**: $223,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $223,000 - funding provides for operation and maintenance of the project including levee slide repairs.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Arkansas River, South Bank, AR

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1946, and 1965.

LOCATION AND DESCRIPTION: The flood control project is located in southeast Arkansas.

RECOVERY ACT ALLOCATIONS TO DATE: $286,200
CONFERENCE FOR FY 2010: T: $169,000
BUDGET FOR FY 2011: M: $150,000 **O**: $50,000 **T**: $200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $200,000 - funding provides for operation and maintenance of the project including levee slide repairs and data collection.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Lower Red River, South Bank Levees, LA

AUTHORIZATION: Flood Control Act of 1928, (Public Law 391), 70th Congress

LOCATION AND DESCRIPTION: The levee system extends from Red River mile 67 at Moncla, LA, in Avoyelles Parish to mile 126 at Hot Wells, LA, in Rapides Parish.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: T: $97,000
BUDGET FOR FY 2011: M: $327,000 **O**: $50,000 **T**: $377,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $377,000 - funding provides for operation and maintenance of the project including levee slide repair.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: Mapping, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: FCA of 1928, H.D. 90/70/1 and subsequent acts.

LOCATION AND DESCRIPTION: The project is located within the geographical limits of the Memphis, Vicksburg and New Orleans Districts. Project provides for the preparation of topographic maps of the Mississippi River Alluvial Valley in furtherance of the control of floods on the Mississippi River and Tributaries.

RECOVERY ACT ALLOCATIONS TO DATE: $300,000
CONFERENCE FOR FY 2010: **T**: $1,074,000
BUDGET FOR FY 2011: **M**: $399,000 **O**: $838,000 **T**: $1,237,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A.

FDR: $1,237,000 – Funding provides for the annual maintenance of existing/new inventory and the collection of funds for the sales of maps, publications, historical photos, aerial photography, and other material on rivers and harbors, and flood control infrastructure on the Mississippi River and Tributaries.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: Memphis Harbor, McKellar Lake, Memphis, TN

AUTHORIZATION: FCA 1928, HD 90/70/1, as amended by subsequent acts, as modified and expanded by SD 51/80/1, approved 24 July 1946. Federal assumption of non-federal maintenance would require authorization.

LOCATION AND DESCRIPTION: This project is located near Memphis, TN, at Mississippi River mile 725.5. The navigation channel extends 7.5 miles into the harbor with a 9-foot project depth and 300 to 500-foot width at various locations. The purpose of the project is to maintain an adequate navigation channel.

RECOVERY ACT ALLOCATIONS TO DATE: $650,000
CONFERENCE FOR FY 2010: **T**: $1,369,000
BUDGET FOR FY 2011: **M**: $1,393,000 **O**: $40,000 **T**: $1,433,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: $1,433,000 – Funding provides for performance of surveys and minimum dredging requirements including labor for coordination and execution of the project.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Mississippi Delta Region, LA

AUTHORIZATION: Flood Control Act of 1965, Water Resource Development Acts of 1974, 1986 (PL 99-662), and 1996 (PL 104-303, Sec. 365).

LOCATION AND DESCRIPTION: The project is located in the lower Mississippi River delta region in Plaquemines and St. Charles Parishes, LA. The Caernarvon structure is located in Plaquemines Parish on the east bank of the Mississippi River in the vicinity of Caemarvon, LA. The Davis Pond structure is located in St. Charles Parish on the west bank just downstream of Luling, LA. The plan of improvement originally consisted of four salinity control structures (Caernarvon, Davis Pond, Homeplace, and Bohemia) with appurtenant levees and channels, to divert freshwater from the Mississippi River into coastal bays and marshes for fish and wildlife restoration.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: T: $1,739,000
BUDGET FOR FY 2011: M: $ 0 **O**: $921,000 **T**: $921,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FDR: $921,000 - Operation of the Caernarvon Structure.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Mississippi River Levees, AR, IL, KY, LA, MS, MO, and TN

AUTHORIZATION: Flood Control Acts of 1928, Sec 1 & 3; 1936, Sec 3, 8, 12; 1938, Sec 4; 1941, Sec 3; 1944, Sec 4; 1946, Sec 10; 1950, Sec 204; 1954, Sec 203; 1962, Sec 207; 1965, Sec 201, 204; 1968, Sec 213; River Basin Monetary Authorization Act of 1971, PL 92-222, Sec 7; WRDA 92, Sec 103 (c)(2); WRDA 00, Sec 508.

LOCATION AND DESCRIPTION: The Mississippi River Levee system on the west bank extends from Allenville, MO, southward to Venice, LA, and on the east bank from Hickman, KY, to opposite Venice, LA, except where interrupted by hills and tributary streams. The Mississippi River Levee System provides flood risk reduction to over 23 thousand square miles in the alluvial valley subject to flooding by the project flood. The alluvial valley is over 650 miles long and varies in width from 20 to 90 miles. Numerous railroads, highways, and airfields connecting the major transportation centers lie within the protected area as do several major transcontinental communication routes. In addition to highly developed agricultural areas, the levees afford protection to urban areas and many industries. The project provides for the maintenance of authorized facilities for the protection against headwater floods of the Mississippi River by means of levees, berms, culverts, outlet structures and floodwalls. Major maintenance of the authorized features of the Mississippi River Levees Project is 100% Federally funded. Local interests are responsible for providing minor maintenance and rights-of-way.

RECOVERY ACT ALLOCATIONS TO DATE: $23,826,500
CONFERENCE FOR FY 2010: T: $11,311,000
BUDGET FOR FY 2011: M: $5,668,000 **O**: $1,914,000 **T**: $7,582,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $7,582,000 - Funding provides for overall operation and maintenance of levees, levee slide repairs, pump station operation, floodfights, water analysis data collection, water control, aerial video, aerial brushkill, cultural resource investigations and environmental surveys, and periodic inspections. These funds will minimize the risk of project failure by reducing damages from flooding and providing compliance with laws.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Old River Control Structure, LA

AUTHORIZATION: Authorized by Public Law. 780, 83rd Congress approved 3 September 1954, to provide for control of flows from the Mississippi River to the Atchafalaya River and Basin by mechanically operated control structures on the right bank of the Mississippi River. This is a modification of Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project is located adjacent to Mississippi River, 85 miles above Baton Rouge, LA.

RECOVERY ACT ALLOCATIONS TO DATE: $15,483,500
CONFERENCE AMOUNT FOR FY 2010: T: $ 9,854,000
BUDGET FOR FY 2011: M: $ 4,838,000 **O**: $ 4,417,000 **T**: $ 9,255,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 2,837,000 – Operation and routine maintenance of Old River Lock, reconnaissance surveys performed in the forebay and tailbay channel to assure that the channels are navigable.

FDR: $ 5,991,000 - Provides resources required to support hired labor forces that maintain the integrity of the existing structures and facilities.

Rec: $ 217,000 – Reopening of parks.

Hydro: N/A

ES: $ 210,000 - Maintenance and management of the Old River and to conduct periodic inspections of easement lands within the Morganza Floodway.

WS: N/A

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: St. Francis River and Tributaries, AR and MO

AUTHORIZATION: Flood Control Act, 15 May 1928, as amended by the Acts of 15 June 1936, 18 August 1941, 24 July 1946, 17 May 1950, 27 October 1965 and 13 August 1968. Local cooperation requirements were modified by the Flood Control Act of 24 July 1946, and limited local responsibility to ordinary maintenance as defined by Section 3 of the Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project extends from the hills southwest of Cape Girardeau, Missouri, to the confluence of the St. Francis and Mississippi Rivers – approximately 10 miles north of Helena, Arkansas. The project provides for a certain level of Federal maintenance of authorized facilities – levees and channels – to provide the authorized level of flood protection. There are two pumping stations - Drainage District #17 and W. G. Huxtable Pumping Plant - built, maintained and operated by the Corps of Engineers. Major maintenance of the authorized features of the St. Francis Basin Project is done at no cost to the local sponsor (100% Federally funded). Local interests are only responsible for minor maintenance and rights-of-entry.

RECOVERY ACT ALLOCATIONS TO DATE: $20,011,200
CONFERENCE FOR FY 2010: **T**: $ 9,509,000
BUDGET FOR FY 2011: **M**: $3,415,000 **O**: $2,878,000 **T**: $6,293,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A.

FDR: $6,293,000 – Funding provides for hired labor activities associated with maintenance contracts awarded prior to FY 2011, pump station operation, floodfights, aerial brushkill, periodic inspections, cultural resource investigations and environmental surveys; and for construction contracts for channel cleanout at Iron Mines Creek, AR, drainage structure replacement at St. Francis, AR, and levee renovation at Drainage District 16, AR. These funds will minimize the risk of project failure by reducing damages from flooding and providing the authorized level of flood protection.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Tensas Basin, Boeuf-Tensas River, AR and LA

AUTHORIZATION: Flood Control Acts of 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986.

LOCATION AND DESCRIPTION: The flood control project is located in central and northeast Louisiana and southeast Arkansas and includes the Lake Chicot pumping plant.

RECOVERY ACT ALLOCATIONS TO DATE: $4,060,000
CONFERENCE FOR FY 2010: T: $2,401,000
BUDGET FOR FY 2011: M: $0 **O**: $2,374,000 **T**: $2,374,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $2,374,000 - funding provides for routine operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Tensas Basin, Red River Backwater Area, LA

AUTHORIZATION: Flood Control Acts of 1941, 1944, 1946, 1950, 1958, 1962, 1965, 1968, and WRDA of 1986

LOCATION AND DESCRIPTION: The flood control project is located in central and northeast Louisiana. The lower basin features include levees, drainage structures and Tensas-Cocodrie pumping plant.

RECOVERY ACT ALLOCATIONS TO DATE: $115,000
CONFERENCE FOR FY 2010: T: $3,536,000
BUDGET FOR FY 2011: M: $24,000 **O**: $3,262,000 **T**: $3,286,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $3,286,000 - funding provides for operation and maintenance of the project including levee slide repair, inspections, data collection, analysis and real estate management.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Vicksburg Harbor, Mississippi

AUTHORIZATION: FCA 1928, as amended by the FCAs 1946, 1954, and WRDA 1986

LOCATION AND DESCRIPTION: The Vicksburg Harbor is located in west-central Mississippi at Vicksburg, MS, with access to the Mississippi River by way of the Yazoo River Diversion Canal. The harbor channel is 500 feet wide and 12,000 feet long with a 500-foot-wide, 15,000-foot-long channel on the Yazoo River Diversion Canal from the Mississippi River to the harbor entrance. A minimum depth of 9 feet at the lowest Mississippi River stage is maintained. The project's purpose is to provide local businesses, industries and vessels navigating the Mississippi River access to the harbor facilities at Vicksburg.

RECOVERY ACT ALLOCATIONS TO DATE: $26,750
CONFERENCE FOR FY 2010: T: $519,000
BUDGET FOR FY 2011: M: $23,000 **O**: $9,000 **T**: $32,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: $32,000 – funding provides for channel condition surveys for maintenance dredging to maintain a 9-foot draft channel.

FDR: N/A.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: Without maintenance dredging funds, this harbor will lose project dimensions during the busiest time of the year when crops are harvested and shipped via various ports and harbors along the Mississippi River. The loss of a dependable, reliable, and safe harbor will have significant adverse impacts on the region due to the increased shipping costs by rail and trucks. The many small communities and farmers served by this harbor will be forced to seek other, more costly means to move their products. Riverside development within the project area has occurred along the east banks of the Mississippi River and the Yazoo Diversion Canal and extends upstream from the vicinity of Interstate 20 Highway Bridge for a distance of approximately 8 miles. Local commerce and vessels navigating the Mississippi River use the harbor facilities at Vicksburg. The Vicksburg District's Mat Sinking Unit and Dredge *Jadwin* are moored at the Vicksburg Harbor during the off-season as well.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN - Operation and Maintenance

PROJECT NAME: Wappapello Lake, MO

AUTHORIZATION: Overton Act of 1936, FCA 1944.

LOCATION AND DESCRIPTION: This project is located on the St. Francis River, mile 309, in the Ozark uplands of Wayne County, Missouri, and provides flood control, recreation, water quality, and conservation of fish and wildlife. Wappapello Lake consists of 44,349 acres of land and 8,400 acres of water. The dam site lies 22 miles southeast of Greenville, 16 miles northeast of Poplar Bluff, and one mile southwest of Wappapello, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $20,812,300
CONFERENCE AMOUNT FOR FY2010: T: $5,232,000
BUDGET FOR FY2011: M: $798,000 **O:** $4,168,000 **T:** $4,966,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: N/A

FDR: $1,908,000 – Routine O&M for FDR operations, dam safety, water control data/analysis, security, and Real Estate costs for compliance management. Funds will ensure O&M for FDR facilities, infrastructure and maintain opertional availability. Critical infrastructure maintenance needs will be addressed to reduce the risk of dam failure and to ensure operational availability. The control structure was originally built in 1940's and has a larger number of critical backlog maintenance items. This dam is rated DSAC III due to seepage and earthquake issues.

Rec: $2,314,000 – Routine O&M of recreation areas, facilities and programs. Visitor Assistance, Public Health and Safety, Accessibility, Use Fee Collection, and Visitor Center O&M. Contract costs associated with the recreation program include: law enforcement, park attendants, combined services (mowing, cleaning, garbage removal), janitorial, utilities, tree trimming, etc.

Hydro: N/A

ES: $744,000 – Routine O&M of environmental stewardship program & features; environmental compliance, management of endangered/invasive species (Feral Hogs, Emerald Ash Borer), cultural/historical resources and land management (forest, wetlands).

WS: N/A

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO, and TN – Operation and Maintenance

PROJECT NAME: White River Backwater, AR

AUTHORIZATION: Flood Control Act of 15 May 1928, as amended. Local cooperation requirements, as modified by the Flood Control Act of 30 October 1951, were limited to ordinary maintenance as defined by Section 3 of the Flood Control Act of 15 May 1928.

LOCATION AND DESCRIPTION: The project is located approximately 20 miles south of Helena, near Elaine, AR, in Phillips and Desha Counties. It consists of 40.2 miles of levee, the Graham Burke Pumping Station, the Little Island Bayou Outlet Structure and Deep Bayou Culvert. The White River Backwater levee, together with the Mississippi River Levee between Old Town and Laconia Circle, protects the enclosed area against all but very large floods. The combined levee system reduces extreme crests on the White River by admitting drainage into the enclosed area thereby restoring the White River Backwater Pool.

RECOVERY ACT ALLOCATIONS TO DATE: $2,735,100
CONFERENCE FOR FY 2010: **T**: $ 1,176,000
BUDGET FOR FY 2011: **M**: $735,000 **O**: $541,000 **T**: $1,276,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A.

FDR: $1,276,000 – Funding provides for hired labor activities associated with maintenance contracts awarded prior to FY 2011, pump station operation, water data collection, air quality permits, periodic inspections, and for levee slide repairs. These funds will minimize the risk of project failure by reducing damages from flooding and providing the authorized level of flood protection.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Arkabutla Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Arkabutla Lake is located in Tate and DeSoto Counties in north Mississippi, approximately 4 miles north of Arkabutla, Mississippi, and 30 miles south of Memphis, Tennessee. Arkabutla Lake is on the Coldwater River and stores floodwaters to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: $5,424,000
CONFERENCE FOR FY 2010: T: $6,637,000
BUDGET FOR FY 2011: M: $33,000 **O**: $5,928,000 **T**: $5,961,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $2,883,000 - funding provides for operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: $2,452,000 - funding provides for operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: $626,000 - funding provides for operation and maintenance of the project including management of natural resources, wildlife mitigation lands, cultural resources and updating the master plan for the project.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Big Sunflower River (Including Bogue Phalia), MS

AUTHORIZATION: Flood Control Acts of 1944, 1946, 1950, and 1962 and 1965 (Sec 201)

LOCATION AND DESCRIPTION: The Big Sunflower River Basin comprises an area of approximately 4,200 square miles in northwest Mississippi. The project provides flood damage reduction benefits. Operation and maintenance requirements are for a continued level of operation of the project.

RECOVERY ACT ALLOCATIONS TO DATE: $171,000
CONFERENCE FOR FY 2010: **T**: $2,319,000
BUDGET FOR FY 2011: **M**: $0 **O**: $184,000 **T**: $184,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $167,000 - funding provides for routine operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: $17,000 - funding provides for routine operation and maintenance including oversight of mitigation.

WS: N/A.

OTHER INFORMATION: None

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Enid Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Enid Lake is located in Yalobusha, Panola, and Lafayette Counties in north-central Mississippi east of Enid, Mississippi, and south of Batesville, Mississippi. Enid Lake is on the Yocona River and stores floodwater to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major economic role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: $9,232,260
CONFERENCE FOR FY 2010: T: $7,381,000
BUDGET FOR FY 2011: M: $ **O**: $5,784,000 **T**: $5,784,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $2,412,000 - funding provides for operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: $2,805,000 - funding provides for operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: $567,000 - funding provides for operation and maintenance of the project including management of natural resources, wildlife mitigation lands, and cultural resources.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Greenwood, MS

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1937, 1938, 1941, 1944, 1946.

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, Mississippi, and includes the operation and maintenance of city of Greenwood Protection Works and includes 55 miles of levees and 14 miles of channels, 2 miles of ditch, 59 drainage structures, 4 pumping plants and 7 weirs.

RECOVERY ACT ALLOCATIONS TO DATE: $1,070,150
CONFERENCE FOR FY 2010: T: $780,000
BUDGET FOR FY 2011: M: $0 **O**: $790,000 **T**: $790,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $790,000 - funding provides for operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Grenada Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Grenada Lake is located in north-central Mississippi northeast of Grenada, Mississippi. Grenada Dam is located in Grenada County, and the lake encompasses portions of Grenada, Yalobusha, and Calhoun Counties. Grenada Dam is on the Yalobusha River and stores floodwaters to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: $7,163,600
CONFERENCE FOR FY 2010: T: $7,131,000
BUDGET FOR FY 2011: M: $ **O**: $6,301,000 **T**: $6,301,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $2,850,000 - funding provides for operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: $2,040,000 - funding provides for operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: $511,000 - funding provides for operation and maintenance of the project including management of natural resources, wildlife mitigation lands, and cultural resources.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Main Stem, Mississippi

AUTHORIZATION: Flood Control Act of 1941, 1944, and 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of 136 miles of levees, 287 miles of channels, and 74 drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: $2,784,950
CONFERENCE FOR FY 2010: T: $2,705,000
BUDGET FOR FY 2011: M: $0 **O**: $1,469,000 **T**: $1,469,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $1,304,000 - funding provides for routine operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: $165,000 - funding provides for continued operation and maintenance of approximately 3,500 acres of mitigation property that was licensed to the Mississippi Department of Wildlife, Fisheries and Parks under a real estate instrument and Memorandum of Agreement in FY 2009.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Sardis Lake, MS

AUTHORIZATION: Flood Control Acts of 1928, (Sec 3); 1936, (Sec 4); 1937, (Sec 6); 1938, (Sec 2); 1941, (Sec 3); 1944, (Sec 10); and 1946 (Sec 10).

LOCATION AND DESCRIPTION: Sardis Lake is located in north-central Mississippi southeast of Sardis, Mississippi. Sardis Dam is located in Panola County, and the lake encompasses portions of Panola, Lafayette, and Marshall Counties. Sardis Dam is on the Little Tallahatchie River and stores floodwater to provide for flood damage reduction in the Yazoo Basin. Recreation and tourism associated with the lake play a major role in the region.

RECOVERY ACT ALLOCATIONS TO DATE: $8,745,000
CONFERENCE FOR FY 2010: T: $8,871,000
BUDGET FOR FY 2011: M: $71,000 **O**: $7,042,000 **T**: $7,113,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $3,633,000 - funding provides for operation and maintenance of the project including inspections, data collection, analysis and real estate management.

Rec: $2,897,000 - funding provides for operation and maintenance of the recreation facilities.

Hydro: N/A.

ES: $583,000 - funding provides for operation and maintenance of the project including management of natural resources, wildlife mitigation lands, cultural resources and updating the master plan for the project.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Tributaries, MS

AUTHORIZATION: Flood Control Act of 1941, 1944, 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of 136 miles of levees, 287 miles of channels, and 74 drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: $1,106,800
CONFERENCE FOR FY 2010: T: $797,000
BUDGET FOR FY 2011: M: $0 **O**: $967,000 **T**: $967,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $967,000 - funding provides for operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Will M. Whittington Auxiliary Channel, MS

AUTHORIZATION: Flood Control Act of 1928, 1936, 1937, 1938, 1941, 1944, 1946, 1962 and 1965.

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, Headwater Area, MS. The project includes leveed floodway and landside drainage ditches from the vicinity of Silver City on the Yazoo River to near the mouth of Big Sunflower River.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: T: $386,000
BUDGET FOR FY 2011: M: $0 **O**: $377,000 **T**: $377,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $377,000 - funding provides for operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo Basin, Yazoo Backwater Area, MS

AUTHORIZATION: Flood Control Act of 1941, 1944, 1965

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin, MS, and includes the operation and maintenance of seven drainage structures.

RECOVERY ACT ALLOCATIONS TO DATE: $1,760,000
CONFERENCE FOR FY 2010: T: $526,000
BUDGET FOR FY 2011: M: $0 **O**: $583,000 **T**: $583,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $500,000 - funding provides for operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: $83,000 - funding provides operation and maintenance of property acquired to mitigate construction losses as a result of an environmental analysis and Section 7 consultation with the United States Fish and Wildlife Service.

WS: N/A.

OTHER INFORMATION: None.

MR&T O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Mississippi River and Tributaries, AR, IL, KY, LA, MS, MO and TN - Operation and Maintenance

PROJECT NAME: Yazoo City, Mississippi

AUTHORIZATION: Flood Control Acts of 1928, 1936, 1937, 1938, 1941, 1944, 1946

LOCATION AND DESCRIPTION: The project is located in the Yazoo Basin. The project includes the operation and maintenance of Yazoo City Protection Works and includes levees, channels, drainage structures, pumping plants and weirs.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: T: $706,000
BUDGET FOR FY 2011: M: $0 **O**: $731,000 **T**: $731,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by B/L as needed) FOR FY 2011:

N: N/A

FDR: $731,000 – funding provides for operation and maintenance of the project including inspections, data collection and analysis.

Rec: N/A.

Hydro: N/A.

ES: N/A.

WS: N/A.

OTHER INFORMATION: None.

North Atlantic Division

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Justification of Estimate

Flood and Coastal
Storm Damage Reduction

1 February 2010

Investigations

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Flood and Coastal Storm Damage Reduction) NEW JERSEY								
Delaware River Comprehensive,	Annual Allocation		474,000	247,000	277,000	296,000	290,000	
NJ	ARRA Allocation				0	0		
Philadelphia District	Total Allocations	2,395,000	474,000	247,000	277,000	296,000	290,000	811,000

The Delaware River basin is located in 42 counties in portions of New York, New Jersey, Delaware and Pennsylvania, draining an approximate 13,539 square mile area. The river basin has experienced considerable degradation over the past two hundred years due to urbanization and industrialization. In addition, the river basin includes the Atlantic Fly way, the final stopover for millions of migratory birds. The river basin is divided into the upper and lower basins. The upper basin area includes small rural and agricultural communities, some heavily populated and industrialized areas, and abandoned mining complexes, which are experiencing developmental, recreational, and environmental pressures; and acid mine drainage problems from over twenty locations. The lower basin, which includes the area from Trenton to Philadelphia through Delaware Bay is heavily urbanized and industrialized, and includes commercial navigation projects. These deep draft navigation projects place millions of cubic yards of sediments annually into numerous upland disposal sites that has degraded thousands of acres of wetlands and terrestrial habitat.

The study is investigating and will recommend solutions to watershed problems, which include, flood damage reduction, floodplain management, aquatic ecosystem restoration, dredged material disposal, water quality control, and acid mine drainage abatement with dredged material. The study will be coordinated with ongoing initiatives being conducted by the State of New Jersey Division of Watershed Management. The sponsor for the feasibility phase of the study is the New Jersey Department of Environmental Protection, who understands the cost sharing requirements for the feasibility phase of the study . The feasibility cost-sharing agreement was executed in July 2006.

Fiscal Year 2010 funds are being used to continue the feasibility study, including a narrowed list of detailed alternatives, screening, and public outreach.

Fiscal Year 2011 funds will be used to continue the feasibility study, including plan formulation and initial identification of selected plans. The estimated cost of the feasibility phase is $4,800,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,800,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	2,400,000
Feasibility Phase (Non-Federal)	2,400,000

The reconnaissance phase was completed under the Delaware River Basin Comprehensive, NY, NJ, PA, & DE in September 2005. The feasibility study is scheduled to be completed in September 2014.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Flood and Coastal Storm Damage Reduction) NEW YORK								
Westchester County Streams,	Annual Allocation		100,000	0	10,000	0	200,000	
Byram River Basin, NY and CT	ARRA Allocation				0	0		
New York District	Total Allocations	2,100,000	100,000	0	10,000	0	200,000	1,790,000

The Byram River Basin study area is located in Westchester County, New York, and Fairfield County, Connecticut. Major storm events and nor'easters cause erosion to the basin streams and tributaries which poise a threat to public and private properties, the area's infrastructure, and safety to human life. The continued sediment transport also damages the basin's ecosystem which impacts the fish and wildlife habitats and recreational activities within the basin. The study will address flood and coastal storm damage reduction measures, as well as ecosystem opportunities within the entire basin. The potential plans could provide comprehensive solutions that will protect homes and businesses from flood damages and restore degrade aquatic ecosystem habitats.

The reconnaissance report found there is a Federal interest for further feasibility phase studies. The feasibility study will evaluate potential flood and costal storm damage reduction opportunities, as well as aquatic ecosystem opportunities to improve the basin's fish and wildlife habitat, water quality improvements, streambank and riparian habitat restoration, sediment transport control, and balancing flow regimes. The potential sponsors for the feasibility phase of the study are the New York State Department of Environmental Conservation and the Town of Greenwich, Connecticut, who understand the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in September 2010.

Fiscal Year 2011 funds will be used to continue the feasibility phase, including data gathering for existing conditions and coordination with local interests. The estimated cost of the feasibility phase is $4,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase was completed in September 2008. The feasibility study is scheduled to be completed in January 2015

Construction

1 February 2010

APPROPRIATION TITLE: Construction, General - Flood and Coastal Storm Damage Reduction

PROJECT: Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, New York (continuing)

LOCATION: The project is located on the South shore of Long Island in Brooklyn (Kings County), New York, approximately nine miles south of the Battery, New York City.

DESCRIPTION: Programmed work consists of construction of a 100-foot-wide berm at an elevation of 13 feet above mean low water, a groin at the western end of the restored beach, and a fillet of beachfill extending westward from the groin at West 37th Street. Also included is the construction of T-groins with beachfill westward of the groin at West 37th Street. Unprogrammed work includes construction of comfort and lifeguard stations, construction of a groin at east end of project and extending beach seaward of historic shoreline.

AUTHORIZATION: Section 501(a) of Water Resources Development Act of 1986 as modified by the Intermodal Surface Transportation and Efficiency Act of 1991, amended by Section 329 of WRDA 2000.

REMAINING BENEFIT-REMAINING COST RATIO: 8.6 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.2 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.7 to 1 at 8 7/8 percent (FY 1992).

BASIS OF BENEFIT-COST RATIO: Final General Design Memorandum entitled Atlantic Coast of New York City, Rockaway Inlet to Norton Point (Coney Island Area), New York, dated April 1992, at October 1990 price levels.

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Programmed Work		
Initial Construction	85	TBD
Periodic Nourishment	0	TBD
Entire Project	30	TBD
Unprogrammed Work		
Comfort and Lifeguard Stations	0	Indefinite
Groin and additional Beach Berm	0	Indefinite

1/ For programmed work only; remaining work is indefinite pending a decision to construct these features.

SUMMARIZED FINANCIAL DATA:

					ACCUM. PCT. OF EST. FED COST
Estimated Federal Cost					105,800,000
Programmed Construction				71,900,000	
Initial Construction		21,700,000			
Periodic Nourishment			47,700,000		
Comfort and Lifeguard Stations		2,500,000			
Unprogrammed Construction				33,900,000	
Initial Construction		15,900,000			
Periodic Nourishment		0			
Comfort and Lifeguard Stations		18,000,000			
Estimated Non-Federal Cost					53,200,000
Programmed Construction				37,300,000	
Initial Construction		11,700,000			
Cash Contribution	11,700,000				
Other Costs	0				
Periodic Nourishment			25,600,000		
Cash Contributions	25,600,000				
Other Costs	0				
Unprogrammed Construction				15,900,000	
Initial Construction		15,900,000			
Cash Contribution	15,900,000				
Other Costs	0				
Periodic Nourishment	0				
Cash Contributions	0				
Other Costs	0				
Comfort and Lifeguard Stations		0			

PHYSICAL DATA

Berm 100 feet wide at 13 feet NGVD
Extended berm 165 feet wide at 8 feet NGVD.
Groins and beachfill westward from groin West 37th St.
Relocation and/or reconstruction of existing comfort and lifeguard stations.

Division: North Atlantic

District: New York

Atlantic Coast of New York City, Rockaway Inlet to Norton Point, Coney Island, NY

SUMMARIZED FINANCIAL DATA: (Continued)

			ACCUM. PCT. OF EST. FED COST
Total Estimated Programmed Construction Cost		109,200,000	
Initial Construction	33,400,000		
Periodic Nourishment	73,300,000		
Comfort and Lifeguard Stations	2,500,000		
Total Estimated Unprogrammed Construction Cost		49,800,000	
Initial Construction	31,800,000		
Periodic Nourishment	0		
Comfort and Lifeguard Stations	18,000,000		
Total Estimated Project Cost		159,000,000	
Initial Construction	65,200,000		
Periodic Nourishment	73,300,000		
Comfort and Lifeguard Stations	20,500,000		

Allocation to 30 September 2007	16,402,000	
Allocation for FY 2008	7,904,000	
Allocation for FY 2009	3,924,000	
Recovery Act Allocations through 31 Dec 2009	0	
Conference allowance for FY 2010	3,000,000	
Allocation for FY 2010	3,000,000	
Allocations through FY 2010	31,230,000	30
Allocation Requested for FY 2011	300,000	30
Programmed Balance to Complete after FY 2011	40,370,000	
Unprogrammed Balance to Complete after FY 2011	33,900,000	

JUSTIFICATION: Erosion had caused serious damage to the shoreline extending through the communities of Coney Island, Brighton Beach, and Sea Gate, New York. Due to this erosion, residential and commercial developments had become increasingly susceptible to storm damage from wave attack and inundation. In March 1962, a severe northeast storm caused breaching and failure of the breach and shore protection structures with damages estimated at $18,000,000. A recurrence of the March 1962 storm would have caused damages of approximating $56,000,000 (October 1989 price levels) without the project in place. A 100 year event would cause storm damage by wave attack in excess of $156,000,000 at October 1993 prices. Project implementation has eliminated these damages.

Fiscal Year 2010: Funds will be applied as follows:

Fully Fund T-Groins Construction Sea Gate Area	$ 2,600,000
Planning, Engineering and Design	$ 100,000
Construction Management	$ 300,000
Total	$ 3,000,000

Fiscal Year 2011: The requested amount will be applied as follows:

Monitoring	$ 300,000
Total	$ 300,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the Requirements listed below:

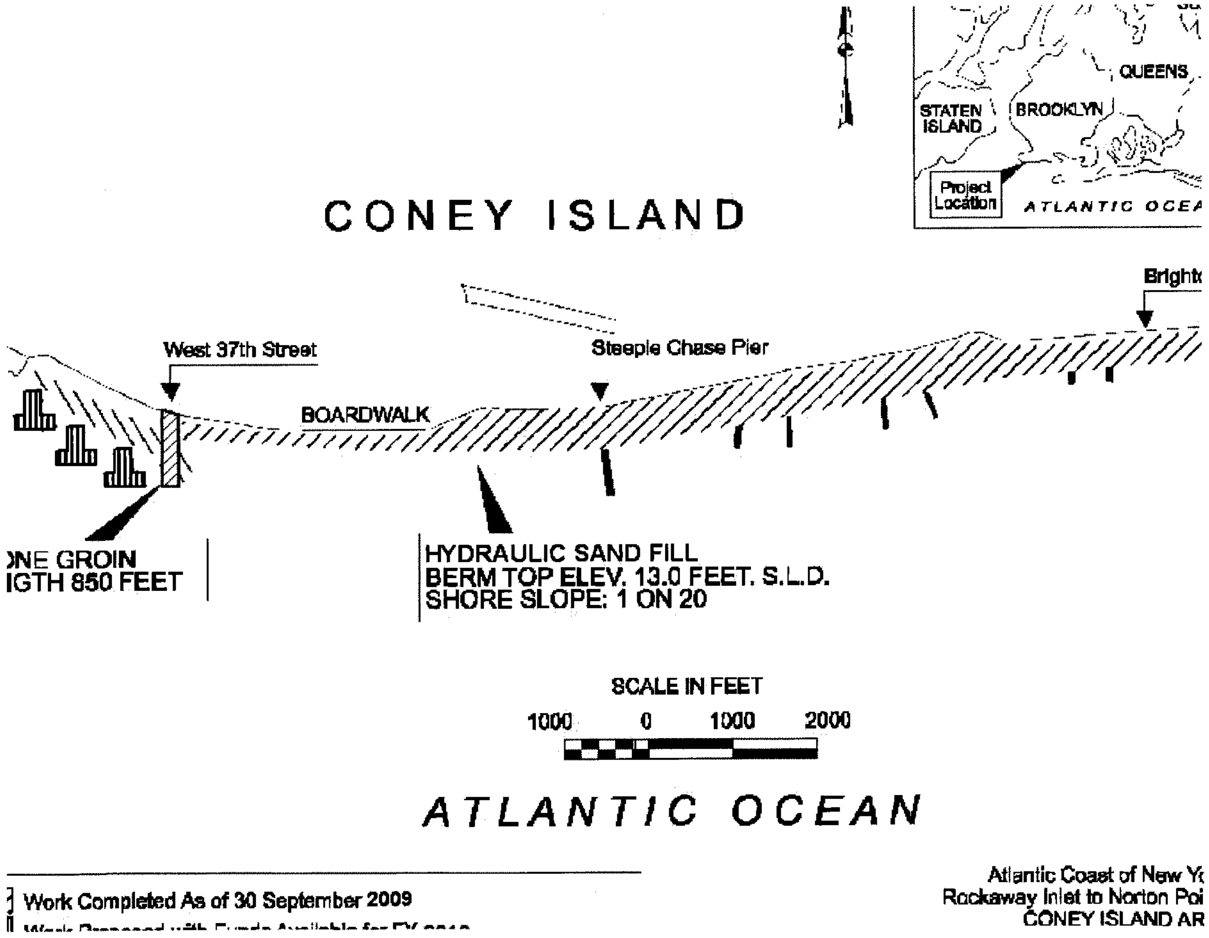
Requirement of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Pay 35 percent of the costs of periodic nourishment allocated to storm damage reduction and 50 percent of the costs allocated to recreation, bear all costs of operation, maintenance and replacement of storm reduction facilities	$ 53,200,000	$950,000
Total Non-Federal Costs	$ 53,200,000	$950,000

STATUS OF LOCAL COOPERATION: The non-Federal sponsor for this project is the New York State Department of Environmental Conservation. The Local Cooperation Agreement for this project was executed in October 1993.The original PCA will be modified in October 2010, to incorporate construction of T-Groins at Seagate and complete the project's initial construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $105,800,000 is the same as the latest estimate (105,800,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Supplemental Environmental Impact Statement was filed with the United States Environmental Protection Agency on 5 June 1992.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1992. The budget funds the initial construction phase of beach nourishment projects that reduce storm damages, but does not support follow-up work for such projects, except to the extent that the operation and maintenance of Federal navigation projects contributed to the erosion of the shoreline.


QUEENS
STATEN ISLAND
BROOKLYN
Project Location
ATLANTIC OCEA
CONEY ISLAND
Bright
West 37th Street
Steeple Chase Pier
BOARDWALK
ONE GROIN
IGTH 850 FEET
HYDRAULIC SAND FILL
BERM TOP ELEV. 13.0 FEET. S.L.D.
SHORE SLOPE: 1 ON 20
SCALE IN FEET
1000
0
1000
2000
ATLANTIC OCEAN
Work Completed As of 30 September 2009
Atlantic Coast of New Y
Rockaway Inlet to Norton Poi
CONEY ISLAND AR

APPROPRIATION TITLE: Construction, General - Flood and Coastal Storm Damage Reduction

PROJECT: Fire Island Inlet to Montauk Point, New York (continuing)

LOCATION: The overall project area extends from Fire Island Inlet easterly to Montauk Point along the Atlantic Coast of Suffolk County. The project is about 83 miles long and comprises about 70 percent of the total ocean frontage of Long Island. Fire Island Inlet is located about 50 miles by water East of the Battery, New York City.

DESCRIPTION: The project provides for beach erosion control and hurricane protection along five reaches of the Atlantic Coast of New York from Fire Island Inlet to Montauk Point. Work includes widening the beaches along the developed areas to a minimum width of 100 feet at an elevation of 14 feet above mean sea level and by raising dunes to an elevation of 20 feet above mean sea level from Fire Island Inlet to Hither Hills State Park and at Montauk and opposite Lake Montauk Harbor, supplemented by grass planting on the dunes, interior drainage structures, construction of up to 50 groins, and subsequent periodic beach nourishment. A reformulation study is underway to evaluate storm damage protection measures. An interim project at Westhampton Beach has been constructed prior to completion of an ongoing overall project reformulation effort. This interim project provides for 30 years of periodic nourishment to maintain a beach berm extending westward from Groin 15 to Moriches Inlet at an elevation of 9.5 feet above mean sea level backed by a dune with a height of +15 feet above msl. The Westhampton Beach Interim project also includes tapering of the existing westernmost two groins, construction of a new groin between groins 14 and 15, and beachfill as necessary within the existing groinfield to promote sand transport. A Breach Contingency Plan has been developed which permits closing of breaches of the barrier island with use of a pre-approved Project Cooperation Agreement format, provided that estimated breach costs are no greater than $5 million. A Decision document was finalized and approved in July 2002 for an interim project to protect the area west of Shinnecock Inlet. This interim project provides for initial beachfill which was initiated in September 2004, in conjunction with the second nourishment of the Westhampton Interim Project. The study for an interim project along Fire Island has been discontinued due to lack of a Non-Federal sponsor.

AUTHORIZATION: River and Harbor Act 14 July 1960, modified by the Water Resources Development Act of 1974, the Water Resources Development Act of 1986, and the Water Resources Development Act of 1992.

REMAINING BENEFIT-REMAINING COST RATIO: 1.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.6 to 1 at 2 5/8 percent (FY 1963).

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost				591,100,000
Programmed Construction			201,600,000	
Initial Construction		67,000,000		
Periodic Nourishment		134,600,000		
Unprogrammed Construction			389,500,000	
Initial Construction		113,400,000		
Periodic Nourishment		276,100,000		
Estimated Non-Federal Cost				295,200,000
Programmed Construction			83,200,000	
Initial Construction		19,500,000		
Cash Contributions	18,800,000			
Other Costs	700,000			
Periodic Nourishment		63,700,000		
Cash Contribution	63,700,000			
Other Costs	0			
Unprogrammed Construction			212,000,000	
Initial Construction		59,200,000		
Cash Contributions	48,850,000			
Other Costs	10,350,000			
Periodic Nourishment		152,800,000		
Cash Contribution	152,800,000			
Other Costs	0			
Total Estimated Programmed Construction			284,800,000	
Initial Construction		86,500,000		
Periodic Nourishment		198,300,000		
Total Estimated Unprogrammed Construction Cost			601,500,000	
Initial Construction		172,600,000		
Periodic Nourishment		428,900,000		
Total Estimated Project Cost				886,300,000
Initial Construction		259,100,000		
Periodic Nourishment		627,200,000		

STATUS: (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Reach 2		
11 groins	100	Oct 1966
4 groins	100	Nov 1970
8 groins	0	1/
Westhampton Interim	40	TBD
Initial Construction	100	Dec 1997
Periodic Nourishment	0	TBD
West of Shinnecock Interim		
Initial Construction	100	Mar 2005
Periodic Nourishment	0	TBD
Balance of Reach	0	1/
Reach 4		
2 groins	100	Sep 1965
Beach Fill-18.4 mi.	0	1/
Balance of Project		
Dune/Beach Fill-39.7 mi	0	1/
27 groins	0	1/
Reformulation Study	91	TBD
Studies for Interim Projects		
Fire Island	90	2/
West of Shinnecock	100	Dec 2002
Beach Contingency Plan	100	Jan 1996

1/ Schedule is dependent on the outcome of the Reformulation effort.

2/ Study terminated due to lack of a non-federal sponsor and environmental issues that will be addressed in the overall reformulation effort

PHYSICAL DATA

Dunes and beach replenishment:73,5 miles

Dunes: raise to elevation 20 feet above msl Beaches: widen to a minimum of 100 ft Interior drainage structures: 3 gated culverts

Groins: 52

Periodic nourishment: 480,000 cubic yards/yr

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September 2007	80,040,000	
Allocation for FY 2008	6,888,000	
Allocation for FY 2009	2,010,000	
Recovery Act Allocations through 31 Dec 2009	0	
Conference Allowance for FY 2010	5,480,000	
Allocation for FY 2010	5,480,000	
Allocations through FY 2010	94,418,000	17
Allocation Requested for FY 2011	1,100,000	18
Programmed Balance to Complete After FY 2011	106,082,000	
Unprogrammed Balance to Complete After FY 2011	389,500,000	

JUSTIFICATION: Erosion has seriously reduced the width of the shoreline in the study area with consequent exposure of the shore and the mainland to wave attack and inundation damages. A recurrence of the hurricane tide of record (September 1938) when 45 lives were lost, would cause inundation and wave damage estimated at $717,000,000 (April 1996 price levels). As a result of the 11 December 1992 storm, in the Westhampton area (Section 1B of Reach 2), over 200 residential structures were destroyed and two breaches of the barrier island occurred. Closure costs for these breaches in 1992 were approximately $6,600,000.

FISCAL YEAR 2010: Funds will be applied as follows:

Continue West of Shinnecock (Required Monitoring)	$ 300,000
Continue Westhampton Beach(Required Monitoring)	300,000
Continue Reformulation Study	200,000
Continue 3rd cycle of Periodic Nourishment for Westhamtpon Interim Project	4,680,000
Total	$ 5,480,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue West of Shinnecock (Required Monitoring)	$ 300,000
Continue Westhampton Beach(Required Monitoring)	300,000
Construction Management for Westhampton Interim Project	250,000
Continue Reformulation Study	250,000
Total	$ 1,100,000

NON-FEDERAL COSTS: Local interests are required to bear 30 percent of the total project cost including periodic nourishment for the Westhampton Interim project and 35 percent of the total project cost for the rest of the project, which includes the value of lands, easements, and rights-of-way.

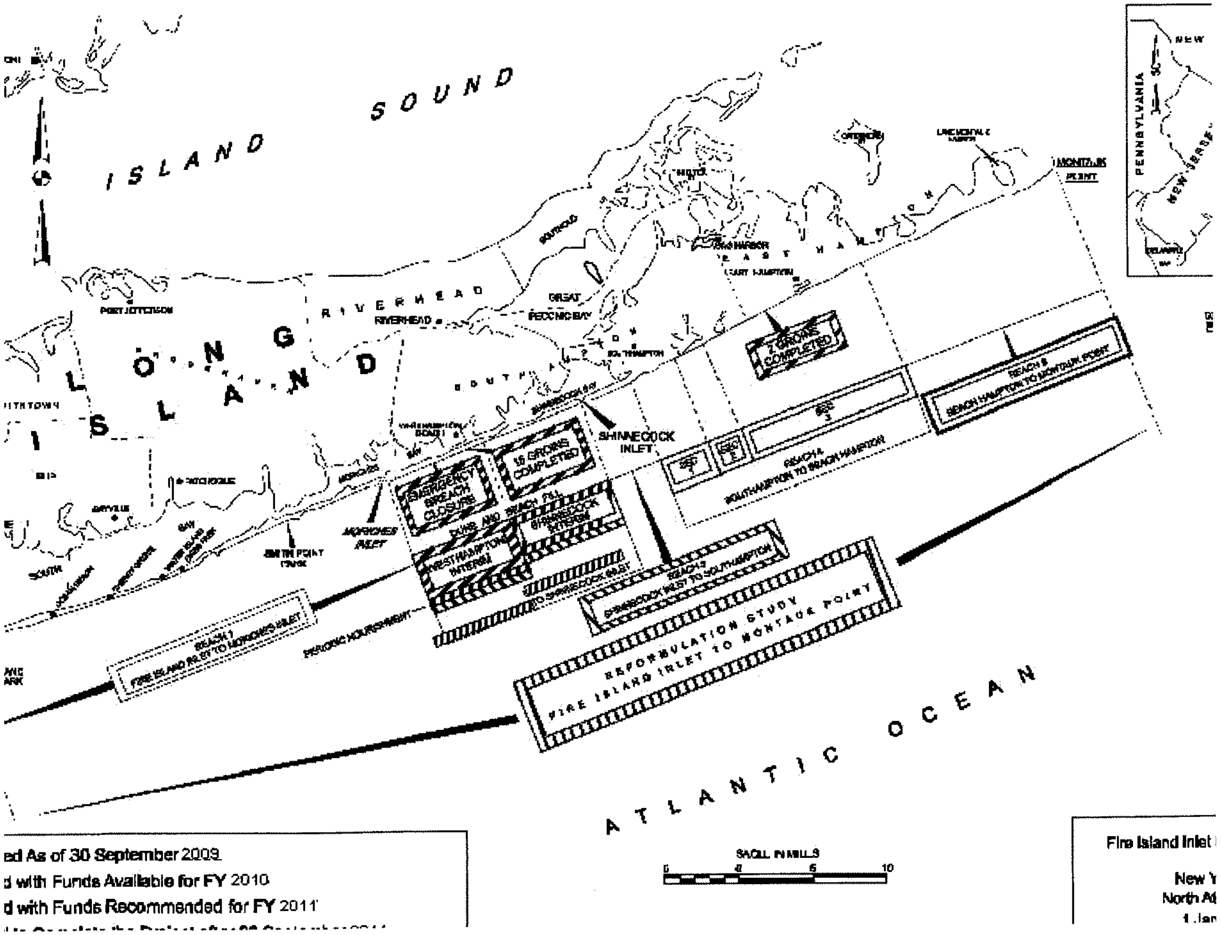
Requirements of Local Cooperation:	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide all lands, easements, and rights-of-way, and relocations.	$ 11,050,000	
Pay 30 percent of the first costs for the Westhampton Interim project and 35 percent of the first costs for the remainder of the project including creditable lands and easements and rights of way, and bear all costs of operation and maintenance and replacement of storm damage reduction facilities.	67,650,000	$0
Pay 30 percent of the periodic nourishment costs for the Westhampton Interim project and 35 percent of the periodic nourishment cost for the remainder of the project.	216,500,000	
Total Non-Federal Costs	$ 295,200,000	$0

STATUS OF LOCAL COOPERATION: The agency responsible for local cooperation is the New York State Department of Environmental Conservation (NYSDEC). Assurances of local cooperation were executed by the NYSDEC on 14 August 1963 and accepted by the Federal Government on 20 August 1963. A project cooperation agreement (PCA) for the Westhampton Interim project was executed in February 1996. A PCA for the West of Shinnecock project was executed in December 2003.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $591,100,000 is the same as the latest estimate ($591,100,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (USEPA) on 28 January 1978. On 7 March 1978, the Department of the Interior (DOI), supported by other agencies referred the EIS to the Council on Environmental Quality (CEQ) as unacceptable. Subsequent to the strong objections on the projects final environmental impact statement, meetings were held between September 1978 and January 1980 with DOI, USEPA, U.S. Department of Commerce, and NYSDEC. Two public scoping meetings were held in October 1979. Subsequently, the Federal agencies agreed to a basis for the reformulation of the Fire Island to Montauk Point project, including a general agreement on the studies necessary to answer the outstanding concerns. An environmental analysis was included in Supplement No. 2 to GDM No. 1 to determine environmentally acceptable measures of beach protection for the critically eroded areas at Westhampton Beach.

OTHER INFORMATION: Initial planning and construction funds were appropriated in FY 1963. The work remaining to be done is completion of construction of Reach 2-Moriches Inlet to Shinnecock Inlet, Reach 4-Southhampton to Beach Hampton, initiation of construction of Reach 1-Fire Island Inlet to Moriches Inlet, Reach 3-Shinnecock to Southampton, and Reach 5-Beach Hampton to Montauk, as well as the completion of the reformulation effort. The Corps of Engineers concurred with the request by the State of New York to initially construct 11 groins (Reach 2), and 2 groins (Reach 4) with beach fill to be added as necessary but not sooner than 3 years after groin completion. In recognition of the critical condition of the beaches due to earlier storms, the Corps recommended to the State in June 1967 that the 3 year observation period be waived and that construction of urgent hurricane protection be resumed. The State concurred and requested that work be undertaken on additional groins, replacement of beach fill and dunes in Reach 2, as well as construction of groins, drainage structures and dune fill in Reach 4. Suffolk County, however, did not endorse the placement of beach and dune fills. Continued negotiations during FY 1969 resulted in agreement on a plan for construction for certain groins, drainage structures, beach fill, and dunes to an interim height of 16 feet in Reaches 2 and 4. In December 1973, the State requested planning for Reach 2 (Section 1b), (Westhampton Beach) and Reach 4 (Georgica Pond), indicating that it would provide funds. Planning resumed and assurances were requested from the State in October 1974. However, strong opposition developed with Suffolk County and the county legislature refusing to provide support. Subsequently, erosion of the shoreline down drift of the groin field at Westhampton Beach accelerated to the point where Dune Road, the only access to the homes in this area, was under water during normal high tide. In 1984, a lawsuit was brought against Suffolk County, the State of New York and United States of America, which claimed that the groin field constructed in the early 1960's caused erosion and damage properties. In October 1994, the Village of Westhampton Dunes intervened and a settlement agreement was reached between the plaintiffs and the county, state and Federal governments to provide for storm damage protection as described in the Corps 1995 Decision Document for the Westhampton Interim project which includes periodic nourishment for a period of 30 years and coastal and environmental monitoring to insure project sustainability and minimize impacts to threatened and endangered species. In December 1992, two breaches occurred in the barrier island near Westhampton Beach, which were subsequently closed. The USEPA and DOI agreed in concept to the interim plan for Westhampton, provided that a full environmental assessment and/or environmental impact study was completed, and the reformulation of the overall project was reinstated. At the direction of Congress, in 1993, the reformulation was reinstated and evaluations for interim projects began. An interim plan for severely eroded Westhampton Beach area was prepared in June 1994, which provides for a lower level protection than that provided in the original authorization. This interim plan has been designed such that it could be modified based on future recommendations in the to-be-completed Reformulation study. The planning engineering and design has been completed for an interim project to address the severely eroded shoreline west of Shinnecock Inlet. The initial construction contract for the West of Shinnecock Interim project was awarded in September 2004 and completed in March 2005.The West of Shinnecock Inlet interim project includes beach fill with periodic nourishment for 6 years, and associated coastal and environmental monitoring as prescribed by the New York State permit. An interim plan for Fire Island barrier island has been discontinued due to the lack of a non-federal sponsor and environmental concerns which will be addressed during the reformulation study. Additionally, a Breach Contingency Plan was approved in January 1996 to provide for rapid response to breaches along the islands while awaiting completion of the reformulation study. The scope of the reformulation study has been modified over the years to capture agencies' concerns and ensure agreement in evaluating alternatives in light of changed conditions, new requirements, and a comprehensive vision for the project.


LONG ISLAND
ISLAND SOUND
ATLANTIC OCEAN
PENNSYLVANIA
NEW JERSEY
NEW
DELAWARE BAY
MONTAUK POINT
RIVERHEAD
RIVERHEAD
GREAT PECONIC BAY
SOUTHAMPTON
EAST HAMPTON
EAST HAMPTON
PORT JEFFERSON
PATCHOGUE
SHINNECOCK INLET
MORICHES INLET
SMITH POINT
7 GROINS COMPLETED
15 GROINS COMPLETED
EMERGENCY BREACH CLOSURE
DUNE AND BEACH FILL
SHINNECOCK INTERIM
WESTHAMPTON INTERIM
PERIODIC NOURISHMENT
REACH 1
FIRE ISLAND INLET TO MORICHES INLET
TO SHINNECOCK INLET
REACH 3
SHINNECOCK INLET TO SOUTHAMPTON
REACH 4
SOUTHAMPTON TO BEACH HAMPTON
REACH 5
BEACH HAMPTON TO MONTAUK POINT
REFORMULATION STUDY
FIRE ISLAND INLET TO MONTAUK POINT
SCALE IN MILES
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4
6
10
ed As of 30 September 2009
d with Funds Available for FY 2010
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Fire Island Inlet
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1 Jan

APPROPRIATION TITLE: Construction, General – Flood and Coastal Storm Damage Reduction

PROJECT: Great Egg Harbor Inlet and Peck Beach, New Jersey (Continuing)

LOCATION: The project is located in Cape May County, New Jersey. Great Egg Harbor Inlet provides a tidal connection from the Atlantic Ocean to Great Egg Harbor Bay and the NJIWW. Peck Beach is occupied in its entirety by the City of Ocean City and extends from Great Egg Harbor Inlet southwest to Corson Inlet, a distance of about 8 miles.

DESCRIPTION: The project consists of providing initial beachfill, with subsequent periodic nourishment, with a minimum berm width of 100 feet at an elevation of +8.0 National Geodetic Vertical Datum (NGVD). The beachfill extends from Surf Road southwest to 34th Street with a 1,000-foot taper south of 34th Street. This plan required the initial placement of approximately 6.2 million cubic yards of material and subsequent periodic nourishment of approximately 1.1 million cubic yards every 3 years. The material for the initial construction and periodic nourishment is being taken from the ebb shoal area located approximately 5,000 feet offshore of the Great Egg Harbor Inlet. This periodic dredging of the ebb shoal area will help alleviate the navigation difficulties in the inlet. Additionally, the initial construction of the project required the extension of 38 storm drain pipes.

AUTHORIZATION: Committee Resolution on December 15, 1970 under the provisions of Section 201 of P.L. 89-298. Project reauthorized with provisions for construction of separable elements under Section 831(1) of the Water Resources Development Act of 1986, P.L. 99-662.

REMAINING BENEFIT-REMAINING COST RATIO: 7.1 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 5.1 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.0 to 1 at 8 5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The April 1989 General Design Memorandum approved on 2 May 1990 at September 1988 price levels.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost	$ 321,700,000		
Initial Construction		$ 20,556,000	
Periodic Nourishment		$301,144,000	
Estimated Non-Federal Costs	$ 183,534,400		
Initial Construction		$ 11,151,000	
Cash Contributions			$ 11,151,000
Other Costs			$ 0
Periodic Nourishment		$172,383,400	
Cash Contributions			$172,383,400
Other Costs			$ 0
Total Estimated Project Cost	$ 505,234,400		
Initial Construction		$ 31,707,000	
Periodic Nourishment		$473,527,400	

STATUS: (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Beachfill (Phase 1)	100	Oct 1992
Initial Beachfill (Phase 2)	100	Mar 1993
Entire Project	19	TBD

PHYSICAL DATA:
Beachfill: Elevation +8 feet (NGVD); 100-Foot Width
Periodic Nourishment: 1.1 million cy every three years

		ACCUM. PCT. OF EST FED COST
Allocations to 30 September 2007	$ 44,632,000	
Allocation FY 2008	$ 2,808,000	
Allocation FY 2009	$ 2,967,000	
Recovery Act Allocations through 31 Dec 2009	$ 0	
Conference Allowance for FY 2010	$ 6,141,000	
Allocation for FY 2010	$ 6,141,000	
Allocations through FY 2010	$ 56,548,000	18
Allocation Requested for FY 2011	$ 500,000	19
Programmed Balance to Complete after FY 2011	$264,652,000	
Unprogrammed Balance to Complete after FY 2011	$ 0	

JUSTIFICATION: The instability of Great Egg Harbor Inlet and the shoreline along Peck Beach is a significant problem. Peck Beach, a 9-mile-long barrier island along New Jersey's southern coastline contains the entire City of Ocean City. The primary problem at Ocean City is the vulnerability of the beach and the adjacent highly urbanized development to erosion and direct wave attack during major storms. Historical erosion rates for the beaches have averaged five feet per year with severe erosion rates up to 35 feet per year in some locations. In March 1962, a severe storm caused breaching and failing of bulkheads and dunes, and resulted in about $15,000,000 damages of which $4,000,000 was attributed to direct wave attack. It was noted that the area fronting the existing Federal shore protection for Ocean City sustained less damage than other locations. The storm of 28 to 30 March 1984 caused extensive damage to the beach, boardwalk, properties and buildings due to the vulnerable condition of the beaches. More recently, the storms of 30 and 31 October 1991 and 3 to 5 January 1992 caused extensive damages to the beach, boardwalk, properties and buildings. Since initial construction of the project was completed in March 1993, approximately $20,000,000 worth of damages to the area were prevented during the 3-5 January 1992 storm, $4,000,000 in damages to the boardwalk during Hurricane Felix in August 1995, and $1,000,000 during the storm of 7-8 January 1996.

Beach erosion and loss of protective dunes have left Ocean City extremely vulnerable to inundations and direct wave attack from even minor storm events. The instability and shoaling of Great Egg Harbor Inlet also creates navigation difficulties for commercial and recreation craft, particularly those associated with low tides and ground swells and damages due to running aground. Unsafe navigation conditions due to excessive shoals at Great Egg Harbor Inlet required the State of New Jersey to commence emergency dredging operations in October 1989.

FISCAL YEAR 2010: Funds will be used to complete the 5th Nourishment Cycle

FISCAL YEAR 2011: The requested amount will be applied as follows:

Project Monitoring	$ 500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

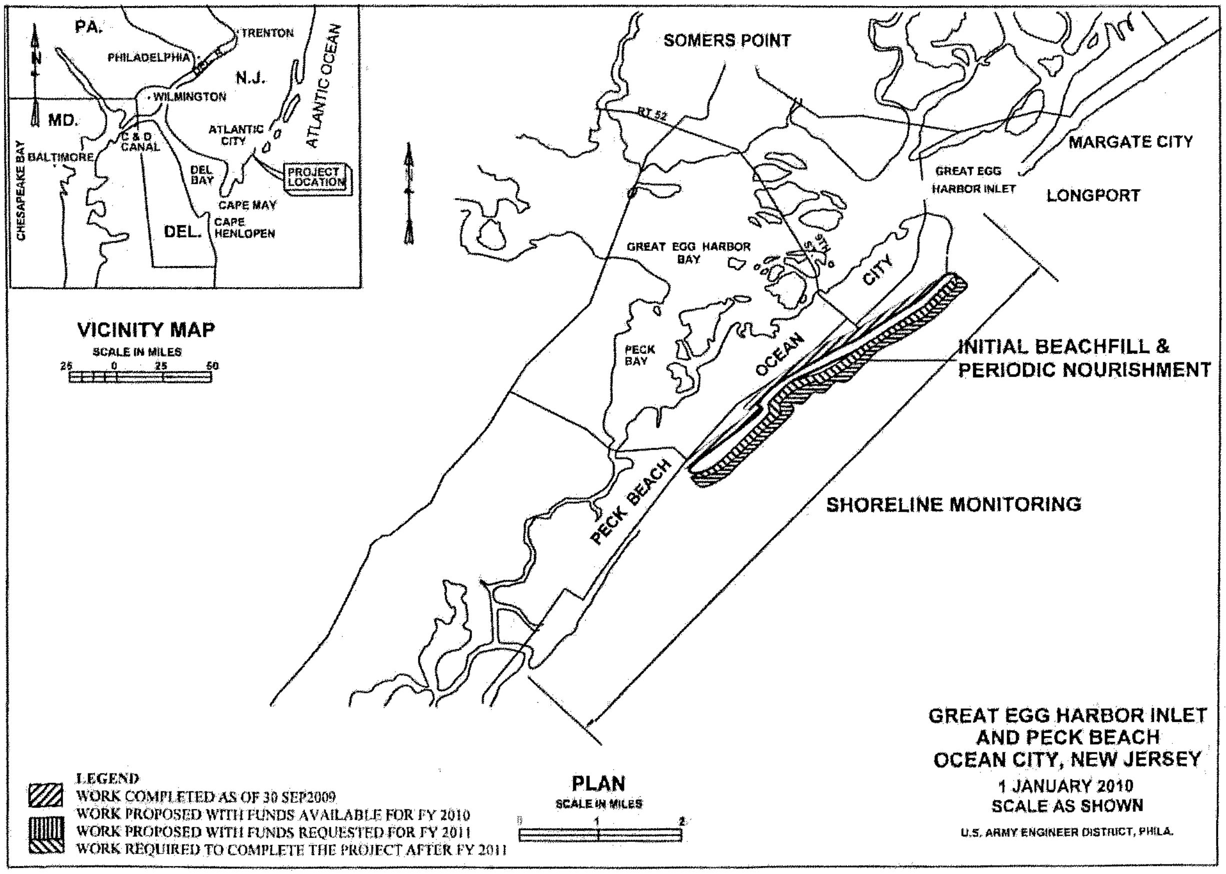
	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide 35 percent of the initial construction costs assigned to project for flood and coastal storm damage reduction	$ 11,151,000	
Provide during construction 35 percent of each periodic nourishment costs assigned to the project for flood and coastal storm damage reduction	$172,383,400	
Bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the completed project.		$32,900
Total Non-Federal Cost	$183,534,400	$32,900

STATUS OF LOCAL COOPERATION: The State of New Jersey (New Jersey Department of Environmental Protection) is the non-Federal sponsor for the project. In a letter dated 28 September 1990, the state identified a funding source for the non-Federal costs and indicated that it was prepared to proceed with the final negotiations to sign the Local Cooperation Agreement. The state's financing plan was provided by letter dated 28 February 1991. The local cooperation agreement was executed on 18 September 1991. The State has provided the required cost sharing for the initial construction and previous periodic nourishment cycles. They have also indicated that they are prepared to provide the required cost share for the currently scheduled periodic nourishment cycle.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $321,700,000 is the same as the latest estimate ($321,700,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 13 November 1970 and a Final Supplemental Environmental Impact Statement (FSEIS) was filed with the Environmental Protection Agency (EPA) in August 1990. The Piping Plover (Charadrius melodus) was listed as an endangered bird species in January 1986 and a determination that the species nests in the project area necessitated informal consultation in accordance with Section 7 of the Endangered Species Act of 1973. A letter from the US Fish and Wildlife Service, dated 9 January 1989 directed the Corps to minimize impacts to the Piping Plover in the project area. A detailed plan to protect the Piping Plover was included in the FSEIS. On 31 August 1990, the Advisory Council on Historic Preservation informed the District that it did not concur with the Finding of No Effect issued by the New Jersey State Historic Preservation Office on 12 April 1989. A process Memorandum of Agreement to address cultural resources concerns relating to project effects on the shipwreck Sindia was executed on 4 April 1991.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973. Funds to initiate construction were appropriated in FY 1990.



GREAT EGG HARBOR INLET
AND PECK BEACH
OCEAN CITY, NEW JERSEY
1 JANUARY 2010
SCALE AS SHOWN
U.S. ARMY ENGINEER DISTRICT, PHILA.

APPROPRIATION TITLE: Construction, General – Flood and Coastal Storm Damage Reduction

PROJECT: Long Beach Island, New York (Continuing)

LOCATION: The project area, which is comprised of 9 miles of oceanfront, is located on the Atlantic Coast of Long Island, New York, between Jones Inlet to the east and East Rockaway Inlet to the west. The area lies within Nassau County, New York.

DESCRIPTION: The plan includes a 110-foot wide beach berm at an elevation of +10 feet NGVD, dune system at an elevation of +15 feet NGVD with a crest width of 25 feet, rehabilitation of 16 of the existing groins, construction of 6 new groins in the most critical erosion area along the island, dune grass, dune fencing, beachfill, and periodic nourishment. All work is programmed.

AUTHORIZATION: Section 101(a) of Water Resources Development Act of 1996.

REMAINING BENEFITS-REMAINING COST RATIO: 2.1 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.5 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 8 percent (FY 1998).

BASIS OF BENEFITS-COST RATIO: Benefits and Costs are from the Feasibility Report dated February 1995 at June 1994 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$120,900,000	
Initial Construction	45,431,000		
Periodic Nourishment	75,469,000		
Estimated Non-Federal Cost		$65,100,000	
Initial Construction	24,463,000		
Cash Contributions	24,463,000		
Other Costs	0		
Periodic Nourishment	40,637,000		
Cash Contributions	40,637,000		
Other Costs	0		
Total Estimated Project Cost		$186,000,000	
Initial Construction	69,894,000		
Periodic Nourishment	116,106,000		
Allocations to 30 September 2007		2,879,000	
Allocations for FY 2008		77,033	
Allocations for FY 2009		96,000	
Recovery Act Allocations through 31 Dec 2009		0	
Conference Allowance for FY 2010		904,000	
Allocations for FY 2010		904,000	
Allocation through FY 2010		3,956,033	3
Allocation Requested for FY 2011		300,000	3
Programmed Balance to Complete after FY 2011		116,643,967	
Unprogrammed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Construction	0	TBD
Groins	0	TBD
Periodic Nourishment	0	TBD
Entire Project	3	TBD

PHYSICAL DATA

Beach Berm 110 ft wide, elev. +10ft NGVD
Dune: 25 ft wide, elev. +15ft NGVD
Groins: Rehabilitation of 16 groins
construct 2 groins
Periodic Nourishment: 2.1 million cy every
5 years

Division: North Atlantic District: New York Long Beach Island, New York

JUSTIFICATION: The area has been subjected to major flooding during storms, causing damage to structures along the barrier island. Over the years, continued erosion has resulted in a reduction in the height and width of the beach front and accelerated deterioration of the locally constructed stone groins, which has made the densely populated communities along the barrier island increasingly susceptible to storm damage. Coastal storms have been a continuing source of damage and economic loss within the project area. Damaging storms occurred in 1950, 1953, 1960, 1962, 1984, 1991, and 1992.In September 1960, Hurricane Donna forced the evacuation of over 300 families. A recurrence of this storm would result in approximately $21,100,000 in damages based on October 1995 price levels and conditions. downdrift beaches against continued shoreline erosion.

FISCAL YEAR 2010: Funds will be applied as follows:

Complete LRR	$ 100,000
P&S for the Ist Construction Element	$ 804,000
Total	$ 904,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete P&S for the Ist Construction Element	$ 300,000
Total	$ 300,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance and Replacement Costs
Provide all lands, easements, rights Of way, and relocations.	$ 396,000	
Pay 35 percent of the cost of Construction, excluding non-creditable Lands, easements, and rights of way, And bear all costs of operations and Maintenance of storm damage reduction Facilities.	12,804,000	
Pay 35 percent of periodic nourishment	51,900,000	
Total Non-Federal Costs	$ 65,100,000	$ 0

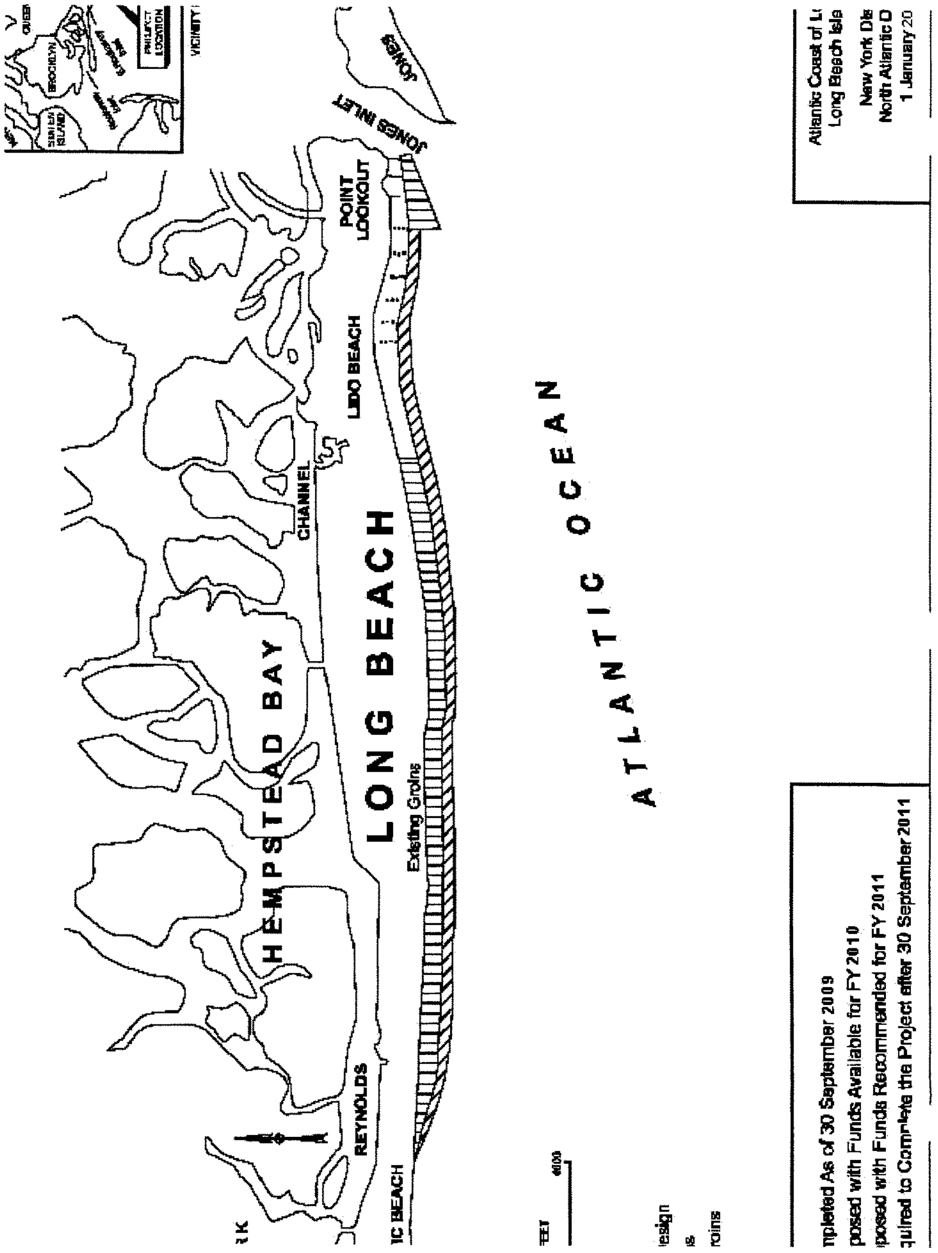
Division: North Atlantic District: New York Long Beach Island, New York

STATUS OF LOCAL COOPERATION: The local sponsor, the New York State Department of Environmental Conservation, has indicated their support for the selected plan and are willing to enter into a Project Partnership Agreement with the Federal Government for the implementation of the plan. Local municipalities along the barrier island will cost share the non-Federal cost with the State. These municipalities, which include the City of Long Beach, the Town of Hempstead and Nassau County, support for the selected plan. The village of Atlantic Beach, which encompasses the western 2 miles of the barrier island, has asked not to be included in the project and is not affected by the proposed plan. A Limited Reevaluation Report is being finalized to document any changes since the feasibility study and ensure local participation. The PPA is scheduled to be executed in September 2012.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $120,900,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Statement was included with the Final Feasibility Report dated February 1995. The Record of Decision (ROD) for the final Environmental Impact Statement was issued on 23 December 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1995 and funds to initiate construction were appropriated in FY 1998.


QUEEN
BROOKLYN
STATEN ISLAND
PROJECT LOCATION
VICINITY
JONES
JONES INLET
POINT LOOKOUT
LIDO BEACH
CHANNEL
HEMPSTEAD BAY
LONG BEACH
Existing Groins
ATLANTIC OCEAN
REYNOLDS
IC BEACH
RK
FEET
4000
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roins
mpleted As of 30 September 2009
posed with Funds Available for FY 2010
posed with Funds Recommended for FY 2011
quired to Complete the Project after 30 September 2011
Atlantic Coast of L
Long Beach Isla
New York Dis
North Atlantic D
1 January 20

APPROPRIATION TITLE: Construction, General - Flood and Coastal Storm Damage Reduction and Ecosystem Restoration

PROJECT: Muddy River, Boston and Brookline, Massachusetts (Continuing)

LOCATION: The Muddy River is a 3.5 mile urban waterway located in eastern Massachusetts in the communities of Boston, Brookline and Newton. The Muddy River originates at Jamaica Pond and flows through the heart of Frederick Law Olmsted's famed "Emerald Necklace", one of the most carefully crafted park systems in America. The park is located next to several residential neighborhoods and some of the area's most prominent businesses and institutions such as the Museum of Fine Arts, Longwood Medical Center, Northeastern University and Wentworth, Simmons and Emmanuel Colleges.

DESCRIPTION: The flood risk management portion of the project involves dredging approximately 65,000 cubic yards of sediment to deepen the Muddy River, removal or replacement of undersized culverts and streambank protection which will provide flood damage reduction against the recurrence of a 20-year event. The ecosystem restoration portion of the project involves dredging approximately 135,000 cubic yards of sediment and restoration of riparian vegetation to improve water quality, enhance aquatic and riparian habitat, and promote recreational use of the river and surrounding parklands. Only flood risk management work is programmed. The project would be constructed in two phases. Phase I involves replacement of two undersized culverts, day-lighting two sections of the river and modification of a bridge and culvert headwall for flood risk management. Phase II involves dredging of the river for both flood risk management and ecosystem restoration.

AUTHORIZATION: Section 552 of the Water Resources Development Act of 2000.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio for the flood risk management portion of the project is 3.4 to 1 at 7 percent. The remaining benefit-remaining cost ratio for the ecosystem restoration portion of the project is not applicable.

TOTAL BENEFIT-COST RATIO: The total benefit to cost ratio for the flood risk management portion of the project is 2.5 to 1 at 7 percent. The total benefit to cost ratio for the ecosystem restoration portion of the project is not applicable.

INITIAL BENEFIT-COST RATIO: The initial benefit to cost ratio for the flood risk management portion of the project is 2.5 to 1 at 5 7/8 percent (FY 2003). The initial benefit to cost ratio for the ecosystem restoration portion of the project is not applicable.

BASIS OF BENEFIT-COST RATIO: Flood risk management benefits are based on the economic evaluation contained in the Revised Draft Muddy River Decision Document, dated September 2003. Benefits are expressed at June 2001 price levels.

SUMMARIZED FINANCIAL DATA			ACCUMULATED PCT. OF EST. FED COST
Estimated Federal Cost		$ 49,465,000	
Estimated Non-Federal Cost		29,735,000	
Cash Contribution	$ 29,645,000		
Other Costs	90,000		
Total Estimated Project Cost		$ 79,200,000	
Allocations to 30 September 2007		$ 3,816,000	
Allocation for FY 2008		9,362,000	
Allocation for FY 2009		4,785,000	
Recovery Act Allocations through 31 Dec 2009		0	
Conference Allowance for FY 2010		5,208,000	
Allocation for FY 2010		5,208,000	
Allocations through FY 2010		23,171,000	47
Allocation Requested for FY 2011		500,000	48
Programmed Balance to Complete After FY 2011		4,594,000	
Unprogrammed Balance to Complete After FY 2011		21,200,000	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Flood Risk Management	0	TBD
Ecosystem Restoration	0	Unprogrammed
Entire Project	0	Unprogrammed

PHYSICAL DATA

Flood Risk Management	
Dredging	65,000 cubic yards
Daylighting River	700 linear feet
Replace/Install Culverts	530 linear feet
Ecosystem Restoration	
Dredging	135,000 cubic yards
Planting Emergent Vegetation	3.5 acres

JUSTIFICATION: During the past century the Muddy River watershed has experienced the effects of gradual urbanization and is now over 70 percent developed. Flooding has worsened because there is little natural storage remaining in the watershed and the carrying capacity of the river has been restricted by undersized culverts, accumulated sediment, vegetation and debris. Several residential neighborhoods and some of the area's most prominent businesses and institutions are subject to frequent flood damage. In October 1996 a 20 to 25-year storm, caused widespead flooding along the Muddy River. The Kenmore Square Subway Station, part of the Massachusetts Bay Transportation Authority's Green Line, was flooded with over 30 feet of water causing $51 million in damages and disrupting service for about 6 months. Average annual damages for the Muddy River are estimated at about $7 million. The proposed project would protect against damages from all floods up to an average recurrence frequency of once in 20 years, as well as reducing damages from larger, more infrequent floods. The average annual benefits, all flood risk management, are estimated at $6,299,500 at June 2001 prices.

The Muddy River is the only remaining small urban stream in Boston or Brookline that still provides significant aquatic habitat. Its location within one of the nation's premier historic park systems and close proximity to internationally known medical, cultural and educational institutions further adds to its significance. Accumulated sediment from urban runoff has contributed to poor water quality, loss of aquatic habitat, and proliferation of invasive aquatic and emergent wetland vegetation. Removal of nutrient rich sediment and invasive plant species will significantly improve water quality, restore 8 acres of open water habitat, create more diverse emergent and riparian habitat, and restore the aesthetic quality of the Muddy River.

FISCAL YEAR 2010: Funds are being used to complete design of Phase I work and execute a Project Partnership Agreement with the Commonwealth of Massachusetts, City of Boston and Town of Brookline. These funds will also be used to initiate design of the flood risk management elements of Phase II work.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete Phase II Planning, Engineering and Design	$ 500,000
Total	$ 500,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas, and perform all relocations determined by the Federal Government to be necessary for the construction, operation and maintenance of the project.	$ 90,000	
Pay 34.9 percent of the costs allocated to flood risk management and ecosystem restoration to bring the total non-Federal share of these costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood risk management and ecosystem restoration facilities.	26,545,000	$ 210,000
Pay all additional costs for the locally preferred plan to dredge Wards Pond instead of the Federally implementable plan of aeration.	3,100,000	
Total Non-Federal Costs	$ 29,735,000	$ 210,000

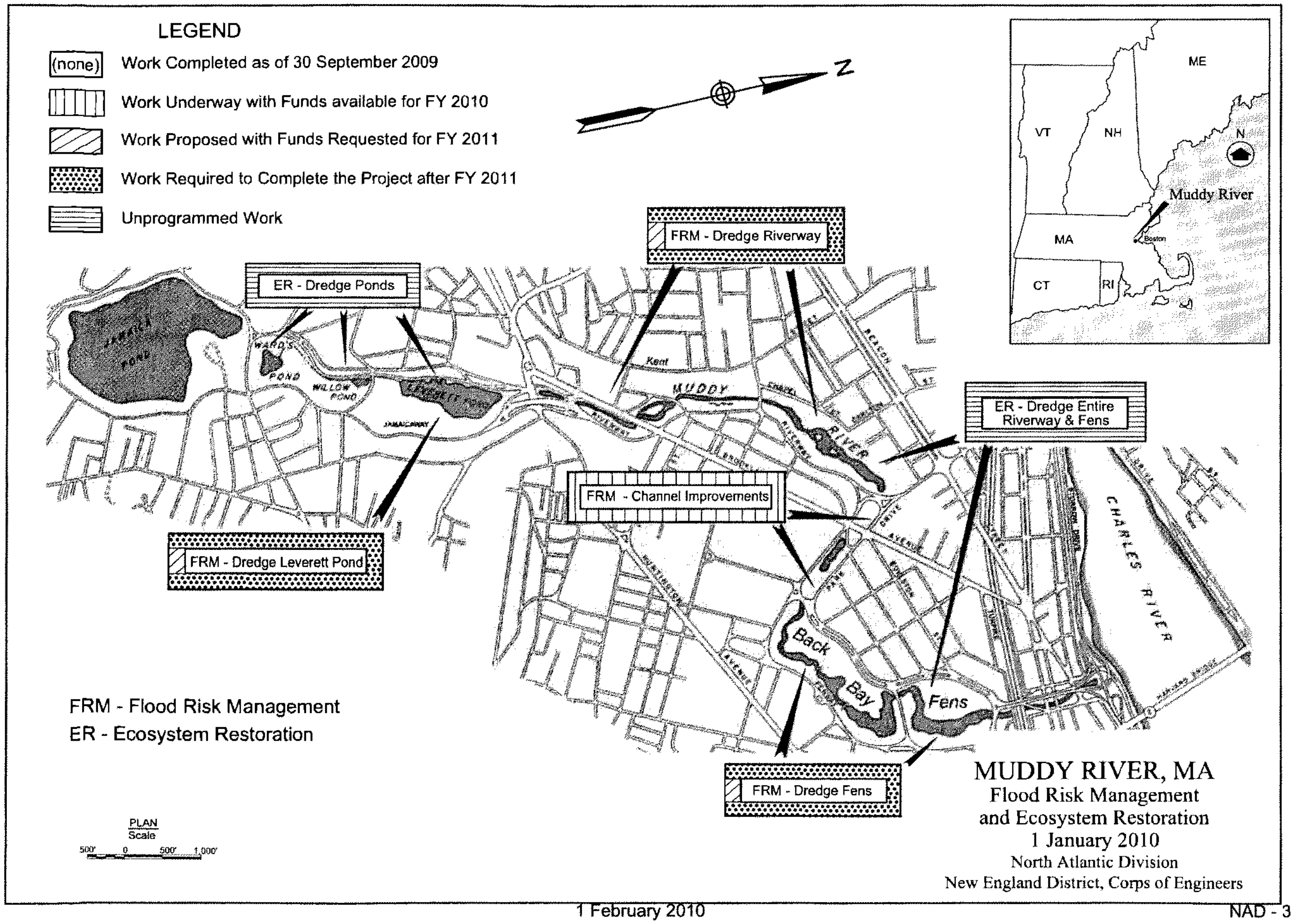
STATUS OF LOCAL COOPERATION: The City of Boston, Town of Brookline and Massachusetts Executive Office of Environmental Affairs (EOEA) are the local sponsors for the project. The City of Boston signed an agreement for design of the entire project on 13 June 2005. The sponsors understand the requirements of local cooperation and are prepared to enter into a Project Partnership Agreement with the Corps in May 2010. The City of Boston, in conjunction with the Town of Brookline and Massachusetts EOEA, will obtain all state and local permits, as well as aquire all lands, easements, rights-of-way, and dredged material disposal areas necessary for project construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $49,465,000 is an increase of $455,000 from the latest estimate ($49,010,000) presented to Congress (FY 2010). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 455,000
Total	$ 455,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was completed on 1 October 2003.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 2001. The design agreement was signed on 13 June 2005 with the City of Boston. Funds to initiate construction of the project were first appropriated in FY 2003. In a letter dated 5 July 2004, the Assistant Secretary for the Army (Civil Works) expressed support for the flood risk management elements of the project, but determined that the ecosystem restoration elements do not demonstrate environmental significance and are therefore not justified.


LEGEND
(none) Work Completed as of 30 September 2009
Work Underway with Funds available for FY 2010
Work Proposed with Funds Requested for FY 2011
Work Required to Complete the Project after FY 2011
Unprogrammed Work
N
ER - Dredge Ponds
FRM - Dredge Riverway
ER - Dredge Entire Riverway & Fens
FRM - Channel Improvements
FRM - Dredge Leverett Pond
FRM - Dredge Fens
Ward's Pond
Willow Pond
Jamaicaway
Kent
Muddy River
Beacon St
Charles River
Back Bay Fens
VT
NH
ME
MA
CT
RI
N
Muddy River
Boston
PLAN Scale
500' 0 500' 1,000'

FRM - Flood Risk Management
ER - Ecosystem Restoration

MUDDY RIVER, MA
Flood Risk Management
and Ecosystem Restoration
1 January 2010
North Atlantic Division
New England District, Corps of Engineers

1 February 2010

NAD - 36

APPROPRIATION TITLE: Construction, General - Flood and Coastal Storm Damage Reduction

PROJECT: Raritan River Basin, Green Brook Sub-Basin, New Jersey (Continuing)

LOCATION: The Green Brook Sub-Basin project area is located within the Raritan River Basin in north-central New Jersey in Middlesex, Somerset and Union Counties. It drains approximately 65 square miles of primarily urban and industrialized area. It includes the following communities: Dunellen, Middlesex Borough, Piscataway, South Plainfield, Bound Brook, Bridgewater, Green Brook, North Plainfield, Warren, Watchung, Berkeley Heights, Plainfield, and Scotch Plains. The project area is divided into three sub-areas: the lower, upper and Stony Brook portions of the sub-basin.

DESCRIPTION: The Project plan consists of a system of levees and floodwalls in the lower portion of the basin, channel modifications and dry detention basins in the upper portion of the basin, and channel modifications in the Stony Brook portion of the sub-basin. The upper portion of the sub-basin has been deferred.

AUTHORIZATION: Section 401(a) of Water Development Act of 1986.

REMAINING BENEFITS - REMAINING COST RATIO: 3.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Benefits are from the analysis contained in the Final General Reevaluation Report dated May 1997 at April 1996 price levels.

RISK INDEX: 136,800

BASIS OF RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA:					ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost				309,400,000	
Programmed Construction		263,200,000			
Unprogrammed Construction		46,200,000			
Estimated Non-Federal Cost				104,000,000	
Programmed Construction			87,700,000		
Cash Contributions	25,500,000				
Other Costs	62,200,000				
Unprogrammed Construction			16,300,000		
Cash Contributions	3,100,000				
Other Costs	13,200,000				
Total Estimated Programmed Construction Cost			350,900,000		
Total Estimated Unprogrammed Construction Cost			62,500,000		
Total Estimated Project Cost			413,400,000		
Allocations thru 30 September 2007				74,953,000	
Allocations to 30 September 2008				10,001,000	
Allocations to 30 September 2009				10,000,000	
Recovery Act Allocation through 31 Dec 2009				17,400,000	
Conference Allowance for FY 2010				6,613,000	
Allocation for FY 2010				6,613,000	
Allocations through FY 2010				118,967,000	43
Allocation Requested for 2011				1,000,000	44
Programmed Balance to complete after FY 2011				143,233,000	
Unprogrammed Balance to complete after FY 2011				46,200,000	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Element 1	75	September 2010
Element 2	0	Indefinite
Element 3	3	TBD
Entire Project	39	Indefinite

PHYSICAL DATA

Element 1 is lower portion of the basin.
It consists of levees, floodwalls, closure structures interior drainage facilities, a bridge reconstruction and non-structural measures including flood proofing and buyouts
Element 2 (Unprogrammed) is the Upper portion of the basin consisting of channel modifications and two dry detention basins.
Element 3 is the Stony Brook Portion of the basin.

JUSTIFICATION: The project area suffers annual flood damages of $41,000,000 (Apr 96 P.L.) without the project. Most recently, the April 15-17, 2007 Nor'easter and September 16-18, 1999 Tropical Storm Floyd flooding was so extensive that the area was designated a Major Disaster Area. Eight deaths have been attributed to floods in the basin. In the recent April 2007 Nor'easter, thirty four people were injured and there were more than 1,000 people evacuated from their residences. In Bound Brook, five homes caught fire and burned to the ground the night of April the 16th when high water prevented emergency personnel from reaching them. On April 23, after surveying the areas, acting Gov. Cody estimated total damages in New Jersey at $180 million. After the flood FEMA and the SBA spent about $16.5 million on loans and grants for individuals and businesses statewide; and another $3.3 million was provided by FEMA as public assistance to help repair infrastructure and pay for police overtime. National Flood Insurance claims paid in Bound Brook totaled around $19.8 million. Beyond the federal dollars, the April flood cost private insurers $160 million statewide for claims according to Insurance Services Office, an industry group.

Division: North Atlantic District: New York Raritan River Basin, Green Brook Sub-Basin, NJ

FISCAL YEAR 2010:	Funds will be applied as follows:	
	Award Basic of base plus option "Seg D" Levee Contract	$ 4,613,000
	Construction Management/ Engineering and Design	$ 2,000,000
	Total	$ 6,613,000

FISCAL YEAR 2011:	The requested amount will be applied as follows:	
	Construction Management/ Engineering and Design	$ 1,000,000
	Total	$ 1,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, relocations and borrow excavated or dredged material disposal areas.	$ 62,200,000	
Pay 25 percent of cost associated with non-structural flood protection	16,300,000	
Pay 6 percent of the costs allocated to flood control, to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986,and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	25,500,000	$1,157,000
Total Non-Federal Costs	$104,000,000	$1,157,000

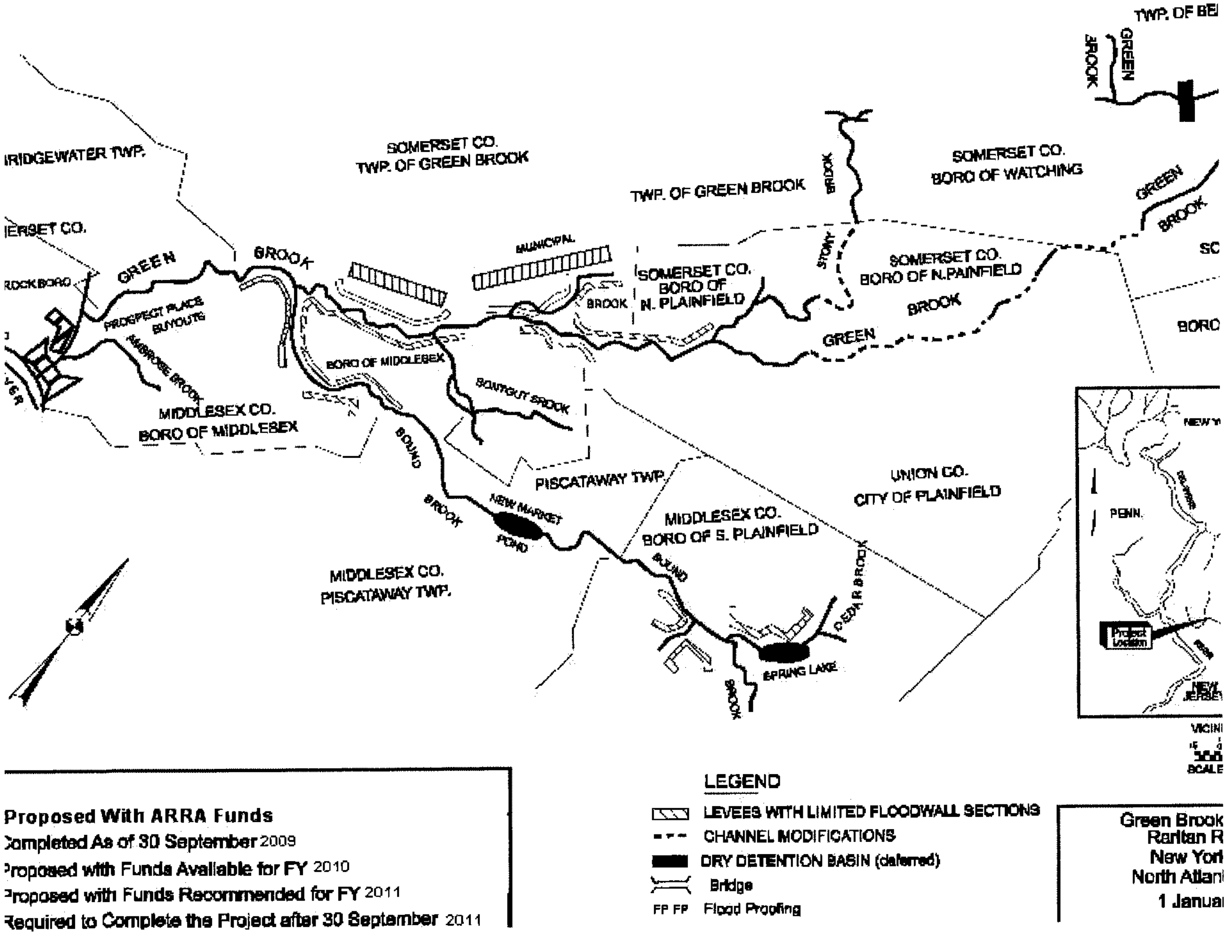
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of New Jersey Department of Environmental Protection, provided a letter dated 17 April 1997 stating their support and endorsement of the project. Governor Whitman also provided a letter of support on 26 February 1998. The Green Brook Flood Control Commission has stated their strong support for the project in a letter dated 4 October 1995. Also, several counties and municipalities have adopted resolutions endorsing and supporting the project. The Project Cooperation Agreement was executed in June 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $309,400,000 is the same as the latest estimate ($309,400,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed in August 1980. A Supplemental Environmental Impact Statement with the Final General Reevaluation Report was released in May 1997 and the Record of Decision was issued in July 1998.

OTHER INFORMATION: None


TWP. OF BE
GREEN
BROOK
IRIDGEWATER TWP.
SOMERSET CO.
TWP. OF GREEN BROOK
TWP. OF GREEN BROOK
BROOK
SOMERSET CO.
BORO OF WATCHING
GREEN
BROOK
SC
IERSET CO.
RDCK BORO
GREEN
BROOK
MUNICIPAL
SOMERSET CO.
BORO OF
N. PLAINFIELD
BROOK
STONY
SOMERSET CO.
BORO OF N.PAINFIELD
BROOK
GREEN
BORO
PROSPECT PLACE
BUYOUTS
AMBROSE BROOK
BORO OF MIDDLESEX
SOMTOUT BROOK
MIDDLESEX CO.
BORO OF MIDDLESEX
BOUND
BROOK
NEW MARKET
POND
PISCATAWAY TWP.
MIDDLESEX CO.
BORO OF S. PLAINFIELD
UNION CO.
CITY OF PLAINFIELD
MIDDLESEX CO.
PISCATAWAY TWP.
BOUND
CEDAR BROOK
SPRING LAKE
BROOK
NEW Y
PENN.
Project Location
NEW JERSEY
VICINI
SCALE
Proposed With ARRA Funds
Completed As of 30 September 2009
Proposed with Funds Available for FY 2010
Proposed with Funds Recommended for FY 2011
Required to Complete the Project after 30 September 2011
LEGEND
LEVEES WITH LIMITED FLOODWALL SECTIONS
CHANNEL MODIFICATIONS
DRY DETENTION BASIN (deferred)
Bridge
FP FP Flood Proofing
Green Brook
Raritan R
New Yor
North Atlan
1 Janua

Navigation

Investigations

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Navigation) NEW YORK								
Lake Montauk Harbor, NY	Annual Allocation		894,000	121,000	119,000	269,000	172,000	
New York District	ARRA Allocation				0	0		
	Total Allocations	1,575,000	894,000	121,000	119,000	269,000	172,000	0

Lake Montauk Harbor is located about 120 miles east of the Battery New York City on the south fork on Long Island in the Town of East Hampton, New York. It is the only harbor of refuge for nearly 50 miles in the area. The existing Federal project provides a 12-foot deep, 150 feet wide channel for a length of 3,700 feet. In addition; there is a boat basin that is 10 feet deep, 400 feet wide and about 900 feet in length, and two jetties with sport fishing facilities. Local interests maintain that the authorized 12-foot project is inadequate for current commercial vessels. The inadequate depth is forcing some deeper draft vessels to wait for higher tides in order to pass safely through the channel. Furthermore, the eastern jetty has deteriorated and is allowing sand to migrate into the channel which requires additional Federal maintenance at increased costs.

A reconnaissance report, completed in May 1995, determined there was a federal interest to deepen the existing channel and provide shoreline protection through beneficial use of dredged material and sand bypassing. The New York State Department Environmental Conservation is the local sponsor for the feasibility study and executed a feasibility cost sharing agreement in March 2003.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study including economic, hydraulic, and environmental analyses.

Fiscal Year 2011 funds will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $2,250,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,700,000
Reconnaissance Phase (Federal)	450,000
Feasibility Phase (Federal)	1,125,000
Feasibility Phase (Non-Federal)	1,125,000

The reconnaissance phase was completed in March 2003. The feasibility study is scheduled to be completed in September 2011

Construction

APPROPRIATION TITLE: Construction – Channels and Harbors, Navigation

PROJECT: AIWW Deep Creek Bridge, Bridge Replacement, Chesapeake, VA (Continuing)

LOCATION: The Deep Creek Bridge is part of U.S. Route 17 and crosses the Dismal Swamp Canal (DSC) segment of the Atlantic Intracoastal Waterway (AIWW) in Chesapeake, VA. Chesapeake is located in southeastern Virginia, approximately 150 miles southeast of Washington, D.C. and directly south of Norfolk, VA.

DESCRIPTION: The final 2001 feasibility report indicates that the National Economic Development Plan consists of replacing the existing 2-lane bridge with a 5-lane low-level bascule bridge. The bridge will be located south of and parallel to the existing bridge and would be constructed at 100% Federal cost. The City of Chesapeake (project Sponsor) will take ownership of the new bridge and assume future operation, maintenance, repair, rehabilitation, and replacement costs for the bridge, thus reducing the Corps future expenditures and removing the bridge from Corps inventory and reducing risk.

AUTHORIZATION: Section 1001(44) of the Water Resources Development Act of 2007 (Public Law 110-114), dated November 8, 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 2.4 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.4 at 7 percent.

INITIAL BENEFIT – COST RATIO: 6.9 at 7 percent (FY 2010).

BASIS OF BENEFIT-COST RATIO: Benefit cost ratios are based on benefits from the latest approved evaluation at FY 2009 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		46,224,000		Entire Project	0	TBD
Estimated Non-Federal Cost		0				
Cash Contributions	0					
Other Costs	0					
Total Estimated Project Cost		46,224,000				

Division: North Atlantic District: Norfolk AIWW Bridge Replacement, Deep Creek, Chesapeake, VA

SUMMARIZED FINANCIAL DATA: (continued)

Allocations to 30 September 2007	2,644,000	
Allocation for FY 2008	45,000	
Allocation for FY 2009	478,000	
Allocation for FY 2010	100,000	
Recovery Act Allocations through 31 Dec 2009	879,000	
Conference Amount for FY 2010	100,000	
Allocations through FY 2010	4,146,000	9
Allocation Requested for FY 2011	1,590,000	12
Programmed Balance to Complete after FY 2011	40,488,000	

PHYSICAL DATA

This project would consist of replacing the obsolete structure with a split leaf eastbound 2-lane with sidewalk and westbound 3-lane, low-level, fast acting, pit bascule bridge located south of and parallel to the existing bridge's centerline. The approach roads include all transportation network tie-ins on either side of the bridge, including intersections. The existing bridge will be demolished.

JUSTIFICATION: The existing 2-lane plus sidewalk pit-bascule bridge was constructed in 1933-34 and is presently 75 years old. This bridge is also on the hurricane evacuation route for the City and for regions south of the City and its present 2-lane configuration is inadequate for the effort. The bridge must be replaced, along with making associated roadway improvements. Also, as agreed upon during the Feasibility Study phase of the project, the City has made all required roadway improvements north, south, east, and west to tie into the proposed bridge and roadway. The existing bridge has now become more of a bottleneck than previously. Removing bridges from Corps inventory reduces overhead, reduces future Corps O&M, and buys down risk. The local sponsor, the City of Chesapeake, VA, has indicated a willingness to take over operations and maintenance of the new bridge; however, cannot take on the heavier O&M responsibilities for this currently, inadequate bridge.

Annual Benefits	Amount
Travel Cost Reduction	$13,444,000
Total	$13,444,000

FISCAL YEAR 2010: Funds appropriated in the amount of $100,000 are being used to complete and execute the Project Partnership Agreement.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Utility Relocations	$1,440,000
Construction Management	$ 150,000
Total	$1,590,000

NON-FEDERAL COST: In accordance with the Report of the Chief of Engineers dated March 3, 2003, the Deep Creek bridge replacement would be constructed at 100% Federal cost and the local sponsor would agree to accept full ownership of the replacement bridge, with ownership rights subordinate to the Federal government's need to operate, maintain, repair and rehabilitate the Dismal Swamp Canal. In addition, the local sponsor will assume responsibility for the operation, maintenance, repair, rehabilitation and placement (OMRR&R) of the completed bridge replacement project, currently estimated at $209,000 annually.

Division: North Atlantic District: Norfolk AIWW Bridge Replacement, Deep Creek, Chesapeake, VA

NON-FEDERAL COST: (continued)

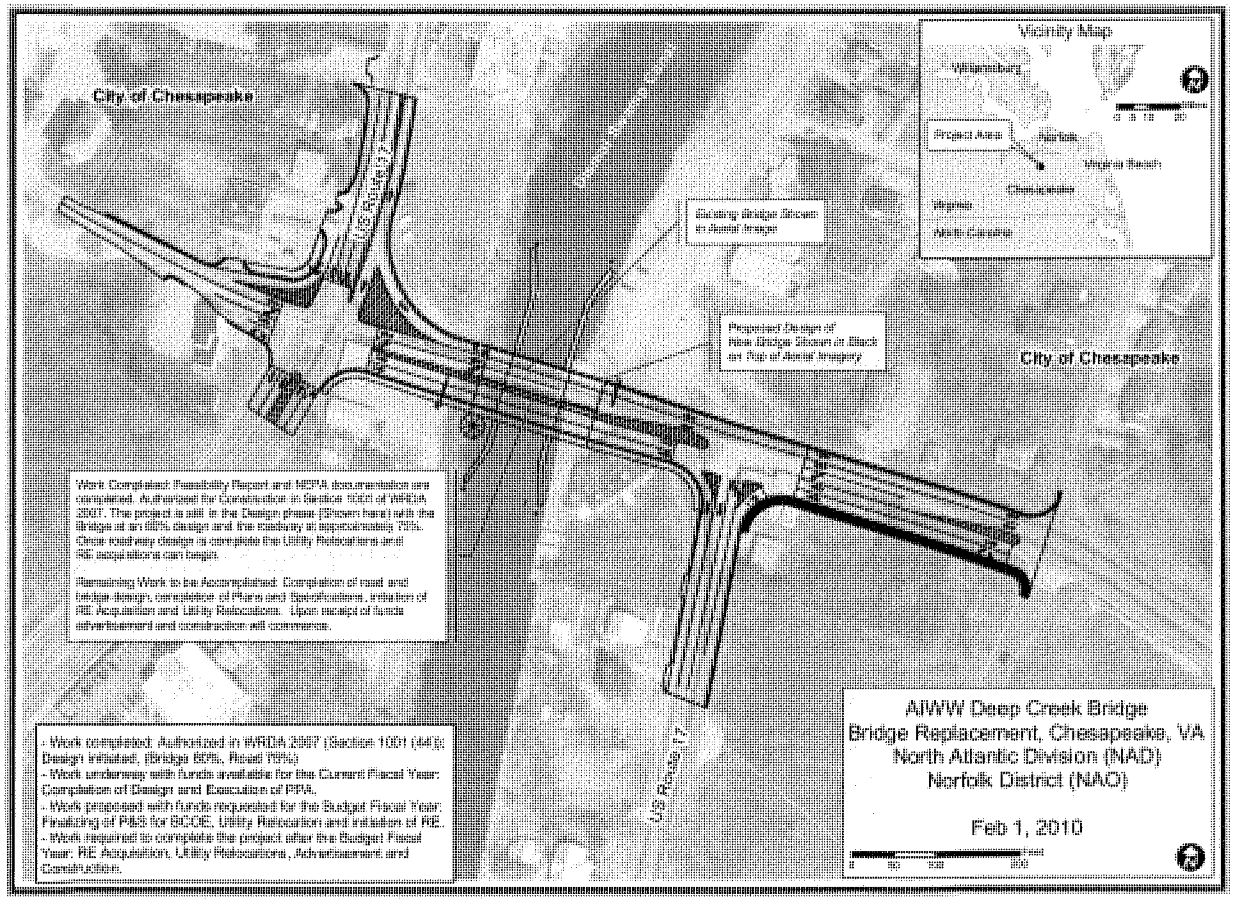
Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Accept full ownership of the replacement bridge.	$0	$209,000

STATUS OF LOCAL COOPERATION: The City of Chesapeake is the local sponsor for this project. They have recently executed a similar PPA for the replacement of the Great Bridge, Bridge, over another section of the AIWW and are currently conducting O&M for that bridge. They are briefed quarterly, at a minimum, on the status of this project and have expressed a great deal of interest in moving forward as is evident by the roadway construction they have already completed up to the existing bridge approaches, which will eventually open the evacuation route to heavier flows. The District is proceeding with final negotiation and execution of the PPA, currently scheduled for execution in March 2010.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $46,224,000 is the same as the latest estimate ($46,224,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: All NEPA compliance requirements for this project have been completed. The Environmental Assessment was completed in April 2001 with the signing of a Finding of No Significant Impact. A reporting only-general permit was issued on February 26, 2004, and does not expire. No permits are required from the Virginia Marine Resources Commission (Nov. 30, 2000 letter of confirmation) or the Chesapeake Wetlands Board (Dec. 5, 2000 letter).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 2001. This bridge will be removed from the Corps inventory upon completion, reducing future Federal O&M expenditures.



Work Completed: Feasibility Report and NEPA documentation are completed. Authorized for Construction in Section 1001 of WRDA 2007. The project is still in the Design phase (Shown here) with the Bridge at an 60% design and the roadway at approximately 75%. Once roadway design is complete the Utility Relocations and RE acquisitions can begin.

Remaining Work to be Accomplished: Completion of road and bridge design, completion of Plans and Specifications, initiation of RE Acquisition and Utility Relocations. Upon receipt of funds advertisement and construction will commence.

- Work completed: Authorized in WRDA 2007 (Section 1001 (44)); Design initiated, (Bridge 60%, Road 75%)
- Work underway with funds available for the Current Fiscal Year: Completion of Design and Execution of PPA.
- Work proposed with funds requested for the Budget Fiscal Year: Finalizing of P&S for BCOE, Utility Relocation and initiation of RE.
- Work required to complete the project after the Budget Fiscal Year: RE Acquisition, Utility Relocations , Advertisement and Construction.

AIWW Deep Creek Bridge
Bridge Replacement, Chesapeake, VA
North Atlantic Division (NAD)
Norfolk District (NAO)

Feb 1, 2010

APPROPRIATION TITLE: Construction General – Navigation Mitigation

PROJECT: Cape May Inlet to Lower Township, New Jersey (Continuing)

LOCATION: The project is located on the Atlantic coast of New Jersey, extending from the southwest jetty of Cape May Inlet to 3rd Ave. in Cape May City. It includes the communities of the City of Cape May and Lower Township, and the US Coast Guard Training Center, all located in Cape May County. The project is approximately 38 miles southwest of Atlantic City.

DESCRIPTION: The project consists of initial beachfill (25 to 180-foot wide berm at elevation +8 feet NGVD) with periodic nourishment on a 2-year cycle, extension of 17 storm water outfalls, reconstruction of 7 groins and construction of two new groins, and a shoreline monitoring program for the project area. Construction of a 2,560-foot rubble mound weir-breakwater is deferred pending demonstration of need. The construction of two groins and placing beachfill and periodic nourishment are programmed while the construction of a weir breakwater is unprogrammed.

AUTHORIZATION: Section 501 of Water Resources Development Act of 1986

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Cape May Inlet to Lower Township, New Jersey, Benefits Reevaluation Report approved March 1988 at June 1987 price levels.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost		$124,102,250 1/
Programmed Construction		$ 115,866,050
Initial Construction	$ 5,930,000	
Periodic Nourishment	$109,936,050	
Unprogrammed Construction		$ 8,236,200
Initial Construction	$ 8,236,200	
Periodic Nourishment	$ 0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Construction	100	June 1991
Breakwaters	0	TBD
Entire Project	27	TBD

Completion of breakwater element is indefinite pending a decision to construct this feature

PHYSICAL DATA:
Beachfill: Elev. +8 Feet (NGVD), 25-180 foot width
Groins: 7 existing and 2 new groins 360-786 feet
Weir Breakwater: 2,560 linear feet rubble mound
Periodic Nourishment: 180,000 cubic yards per year

SUMMARIZED FINANCIAL DATA (Continued)

Estimated Federal Cost (USCG)				$ 13,271,300
Programmed Construction			$ 8,726,900	
Initial Construction		$ 3,458,000		
Periodic Nourishment		$ 5,268,900		
Unprogrammed Construction			$ 4,544,400	
Initial Construction		$ 4,544,400		
Periodic Nourishment		$ 0		
Estimated Non-Federal Cost				$ 3,139,250 1/
Programmed Construction			$ 2,224,700	
Initial Construction		$ 656,000		
Cash Contributions	$ 656,000			
Other Costs	$ 0			
Periodic Nourishment		$ 1,568,700		
Cash Contributions	$1,568,700			
Other Costs	$ 0			
Unprogrammed Construction			$ 914,550	
Initial Construction		$ 914,550		
Cash Contributions	$ 914,950			
Other Costs	$ 0			
Total Estimated Programmed Construction				$126,817,650 1/
Initial Construction			$ 10,044,000	
Periodic Nourishment			$116,773,650	
Total Estimated Unprogrammed Construction Cost				$ 13,695,150 1/
Initial Construction			$ 13,695,150	
Periodic Nourishment			$ 0	
Total Estimated Project Cost				$140,512,800 1/
Initial Construction			$ 23,739,150	
Periodic Nourishment			$116,773,650	

SUMMARIZED FINANCIAL DATA:

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	$27,422,000 2/	
Allocation for FY 2008	$ 522,000	
Allocation for FY 2009	$ 2,500,000	
Recovery Act Allocations through 31 Dec 2009	$ 0	
Conference Allowance for FY 2010	$ 189,000	
Allocation for FY 2010	$ 189,000	
Allocations through FY 2010	$30,633,000 2/	24
Allocation Requested for FY 2011	$ 200,000	25
Programmed Balance to Complete after FY 2011	$85,033,050 1/	
Unprogrammed Balance to Complete after FY 2011	$ 8,236,200	

1/ 100 percent of project costs are allocable to the restoration of sand losses from operation and maintenance of Cape May Inlet. As authorized, the project provides that a portion of costs be allocated to the United States Coast Guard, and costs not assigned to the Coast Guard be cost shared 90 percent Federal and 10 percent non-Federal. However, the budget proposes that 100 percent of the costs of renourishment allocable to the correction of navigation impacts (in this case, 100 percent of all costs) be paid with Civil Works funds.

2/ Includes $3,226,000 in USGC funds deposited into the Federal account

JUSTIFICATION: The project area has experienced substantial erosion since the construction of the Cape May Inlet jetties in 1911 by the Federal Government. The jetties interrupt the natural movement of sand along the coast which serves to replenish downdrift beach areas. The City of Cape May and State of New Jersey have spent nearly $4 million since 1945 to combat the resulting erosion. This erosion has left Cape May with little or no protective beach, thus endangering many hotels, small businesses, prominent homes, and a U.S. Coast Guard Training Center. This project would partially restore the beaches of Cape May lost as the direct result of the Cape May Inlet jetties. The potential for future storm damages and maintenance of the seawall would be greatly reduced. The commercial tourism industry would also be enhanced by the provision of sufficient beach area for recreational usage. The project prevented approximately $9 million worth of damages during the 3-5 January 1992 storm, and approximately $500,000 in damages during the 7-8 January 1996 storm. Federal facilities have existed at the present site since the establishment of a U.S. Navy Section Base in 1918. The U.S. Coast Guard became the sole occupant in 1948 when the Recruit Training Center was transferred from Florida. In addition to being the sole site for Coast Guard recruit training for the entire nation, the site also includes a Group/Air Station complex, a Search and Rescue Station, a small boat maintenance facility, and berths for four cutters ranging from 82 to 210 feet in length. The Commandant of the U.S. Coast Guard (USCG) offered to seek funds to support a cost-shared project with the Corps of Engineers, because of the erosion at the Training Center and the need for a cooperative effort to solve the problem. The average annual benefits are $3,993,000 at June 1987 price levels. These include annual storm damage reduction benefits of $2,977,000, reduced annual maintenance costs of $160,000, and annual recreation benefits of $856,000.

FISCAL YEAR 2010: Funds will be used for project monitoring.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Project Monitoring	$ 200,000

NON-FEDERAL COST: In accordance with Section 101 of the Water Resources Development Act of 1986, costs of constructing measures for mitigation of erosion damages attributable to the Federal navigation project at Cape May Inlet shall be shared in the same proportion as the cost sharing provisions applicable to the original project at Cape May Inlet. The original project was constructed at a Federal cost of approximately $900,000 with a local contribution of $100,000. The distribution of initial costs between the USCG and Cape May City is based on the ratio of benefits accrued by the feeder beach between the two locations. Costs for the remaining features of the recommended project will be allocated to Cape May City. As the project is authorized, the non-Federal sponsor must pay 10 percent of the cots not assigned to the Coast Guard. However, the budget proposes that 100 percent of the remaining costs of renourishment allocable to the correction of navigation impacts (in this case, 100 percent of all costs) be paid with Civil Works funds. Accordingly, the figures displayed reflect a reduction of $5,831,000 reassigned from the non-Federal sponsor to Civil Works.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Reimbursement Costs
Cash contributions equal to 10 percent of the initial construction cost and 10 percent of periodic nourishment and monitoring.	$ 2,224,700	
Cash contributions equal to 10 percent of initial breakwater construction Costs (Deferred) $	914,550	
Total Non-Federal Costs	$ 3,139,250	$0

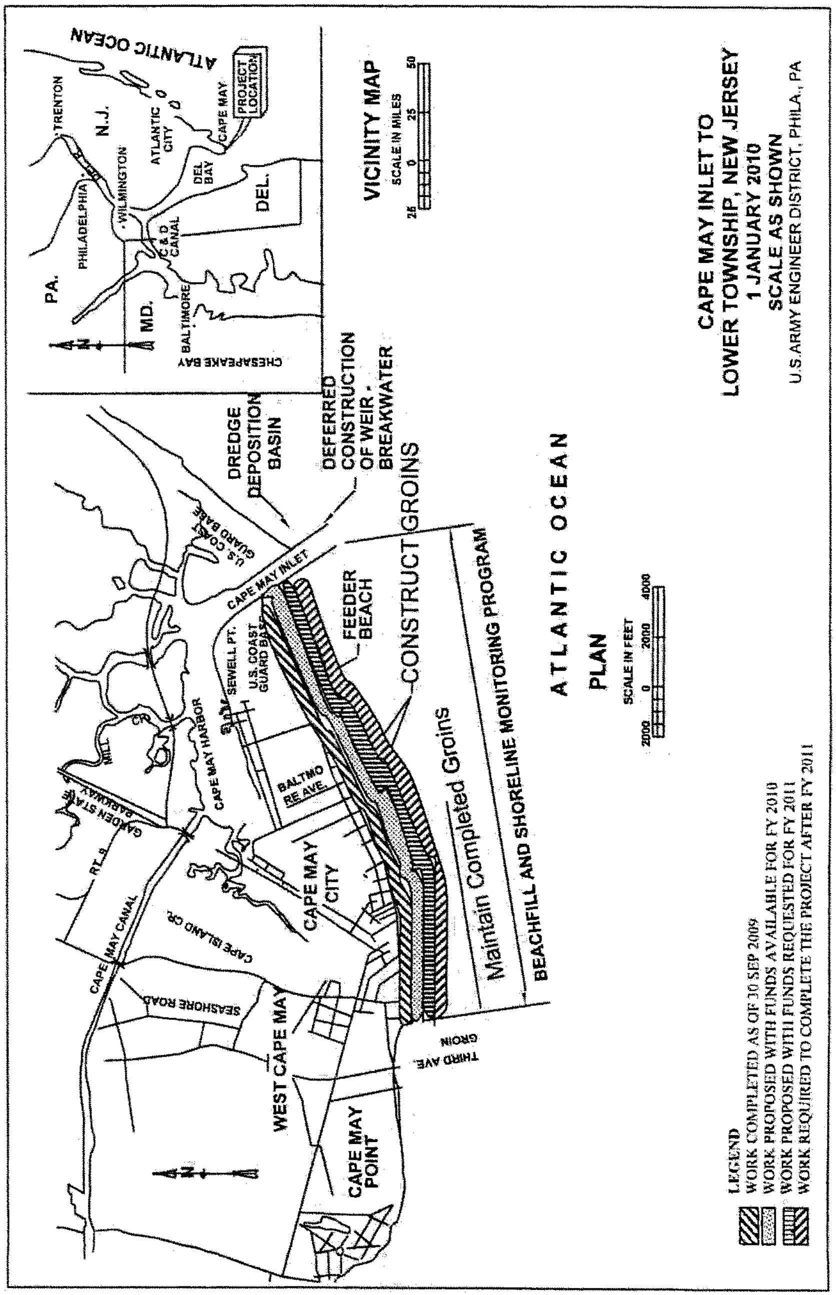
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the State of New Jersey. A Memorandum of Agreement with the USCG was executed on 4 August 1988. A Local Cooperation Agreement with the State of New Jersey was executed on 31 October 1988.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate (Corps of Engineers) of $124,102,250 is an increase of $5,627,250 from the latest estimate ($118,475,000) presented to Congress (FY 2006). This change includes the following items:

Price Escalation of Construction Features	$5,627,250

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with the Council on Environmental Quality on 8 October 1976 and a Final Supplement was filed with the Environmental Protection Agency on 14 August 1981. Listing of Piping Plover (Charadrius Melodus) as an endangered bird species in January 1986 and the recent determination by State wildlife officials that the species nests in the project area have necessitated informal consultation in accordance with Section 7 of the Endangered Species Act of 1973. A letter from U.S. Fish and Wildlife Service, dated 20 August 1987 determined that the proposed project is not likely to adversely affect the Piping Plover, provided an operational window is observed. Coordination with the Service is continuing.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1978. Funds to initiate construction were appropriated in FY 1986.



CAPE MAY INLET TO
LOWER TOWNSHIP, NEW JERSEY
1 JANUARY 2010
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

LEGEND
- ▨ WORK COMPLETED AS OF 30 SEP 2009
- ░ WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
- ▥ WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
- ▧ WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

APPROPRIATION TITLE: Construction, General – Navigation Mitigation

PROJECT: Delaware Bay Coastline, Roosevelt Inlet to Lewes Beach, DE (Continuing)

LOCATION: Project area is located in Sussex County in Southern Delaware at the entrance to the Delaware Bay. Sussex County is one of three counties in the State of Delaware. It is bordered on the east by the Atlantic Ocean, on the south and west by Maryland, and on the north by Kent County. The study area of Lewes Beach which is situated between the Lewes and Rehoboth Canal and Delaware Bay consists of 2 miles of beach from Roosevelt Inlet to the Cape May-Lewes Ferry Terminal.

DESCRIPTION: The plan for the purposes of navigation mitigation and hurricane and storm damage reduction consists of a 25-foot wide berm at an elevation of +8.0 feet NAVD, and a dune at an elevation of +14.0 feet NAVD over a total project length of 1,400 feet. The total project width of the berm and dune, including side slopes, is 100 feet. The plan includes dune grass, dune fencing and suitable advance beachfill and periodic nourishment every six years over the 50-year project life to ensure the integrity of the design. The plan also provides for reconstruction of the south jetty at Roosevelt Inlet.

AUTHORIZATION: Section 101 (a) (13) of WRDA 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Benefits and costs (October 1998 price level) are based on the Chief of Engineers Report dated 03 February 1999.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost	$29,544,100 1/
Programmed Construction	$27,933,400
Initial Construction	$ 3,880,000
Periodic Nourishment	$24,053,400 1/
Unprogrammed Construction	$ 1,610,700
Initial Construction	$ 0
Periodic Nourishment	$ 1,610,700 1/
Estimated non-Federal Cost	$ 1,704,000
Programmed Construction	$1,137,000
Initial Construction	$1,137,000
Cash Contributions	$1,119,000
Other Costs	$ 18,000
Periodic Nourishment	$ 0
Unprogrammed Construction	$ 567,000
Initial Construction	$ 0
Periodic Nourishment	$ 567,000
Cash Contributions	$ 567,000 1/
Other Costs	$ 0
Total Programmed Construction	$29,070,400
Initial Construction	$ 5,017,000
Periodic Nourishment	$24,053,400
Total Unprogrammed Construction	$ 2,177,700
Initial Construction	$ 0
Periodic Nourishment	$ 2,177,700
Total Estimated Project Cost	$31,248,100 1/
Initial Construction	$ 5,017,000
Periodic Nourishment	$26,231,100

STATUS: (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Beachfill	100	Sep 2005
Periodic Nourishment	4	TBD
Entire Project	17	TBD

PHYSICAL DATA:
Beachfill: 25-foot wide berm at an elevation of +8.0 feet NAVD and 75-foot wide dune at an elevation of +14.0 feet NAVD over a total project length of 1,400 feet. Dune grass and dune fencing.
Periodic Nourishment: Every 6 years

Division: North Atlantic District: Philadelphia Delaware Bay Coastline, Roosevelt Inlet to Lewes Beach, DE

		ACCUMULATED PCT OF EST. FED. COST
Allocations to 30 September 2007	$ 3,937,978	
Allocation for FY 2008	$ 95,000	
Allocation for FY 2009	$ 335,000	
Conference Allowance for FY 2010	$ 331,000	
Recovery Act Allocations through 31 Dec 2009	$ 0	
Allocation for FY 2010	$ 331,000	
Allocations through FY 2010	$ 4,698,978	16
Allocation Requested for FY 2011	$ 350,000	17
Programmed Balance to Complete after FY 2011	$24,495,122 1/	
Unprogrammed Balance to Complete after FY 2011	$ 0	

1/ 91.7 percent of project costs are allocable to the restoration of sand losses from operation and maintenance of Federal navigation structures at Roosevelt Inlet and Cape Henlopen. As authorized, the project provides that this portion be cost shared 90 percent Federal and 10 percent non-Federal, and that the remaining 8.3 percent of costs, which are allocable to storm damage reduction, be cost shared 65 percent Federal and 35 percent non-Federal. However, the budget proposes that 100 percent of the costs of renourishment allocable to the correction of navigation impacts (in this case, 91.7 percent of all costs) be paid with Civil Works funds.

JUSTIFICATION: Federal navigation works in the vicinity of Lewes Beach contribute to the shoreline erosion at Lewes Beach. These navigation works include a breakwater that provides a harbor of refuge inside Cape Henlopen and jetties and a navigation channel at Roosevelt Inlet. The Federal navigation works have interrupted the natural longshore sand transport, resulting in accelerated shoreline erosion at Lewes Beach. The impacts of the Federal navigation works leave the community of Lewes Beach at a greater risk to damages from hurricanes and coastal storms. Progressive and constant erosion is evident in certain areas of the bay shoreline. Despite shore protection measures undertaken by both the Federal Government and the State of Delaware, sections of the shoreline in the study area continue to erode. Long term erosion of the beachfront along the Delaware Bay has resulted in a persistent reduction in storm damage protection. The proximity of roads to the shoreline and the concentration of homes in Lewes Beach can result in significant economic damages in the event of a major storm. The highest elevation of water recorded for Lewes, DE was 7.1 feet (NAVD) for the March 1962 northeaster. Storm damages were estimated at $5.4 million at that time along the Delaware bayshore communities. Storm damages at Lewes Beach were estimated at $1.6 million. Average annual benefits are $602,000 (October 1998 price level).

FISCAL YEAR 2010: Funds will be used for project monitoring.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Project Monitoring	$ 350,000

NON-FEDERAL COST: In accordance with section 101(a)(13) of the Water Resources Development Act of 1999, the costs allocable to the restoration of sand losses from operation and maintenance of Federal navigation projects (91.7 percent) shall be cost shared 90 percent Federal and 10 percent non-Federal, and the remaining costs (8.3 percent), which are allocable to storm damage reduction, shall be cost shared 65 percent Federal and 35 percent non-Federal.

	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide all lands, easements, rights-of-way, and relocations.	$ 18,000	
Provide 10 percent of the initial costs of construction allocable to correction of the impacts of Federal navigation operation and maintenance (91.7 percent of costs)	$ 1,026,123	
Provide 35 percent of initial costs of construction allocable to storm damage reduction (8.3 percent of costs).	$ 92,877	
Provide 35 percent of the periodic nourishment and monitoring costs due to shore damage reduction.	$ 567,000	
Bear all costs of operation, maintenance, repair, replacement, and rehabilitation of the completed project.		$ 17,000
Total Non-Federal Cost	$ 1,704,000	$ 17,000

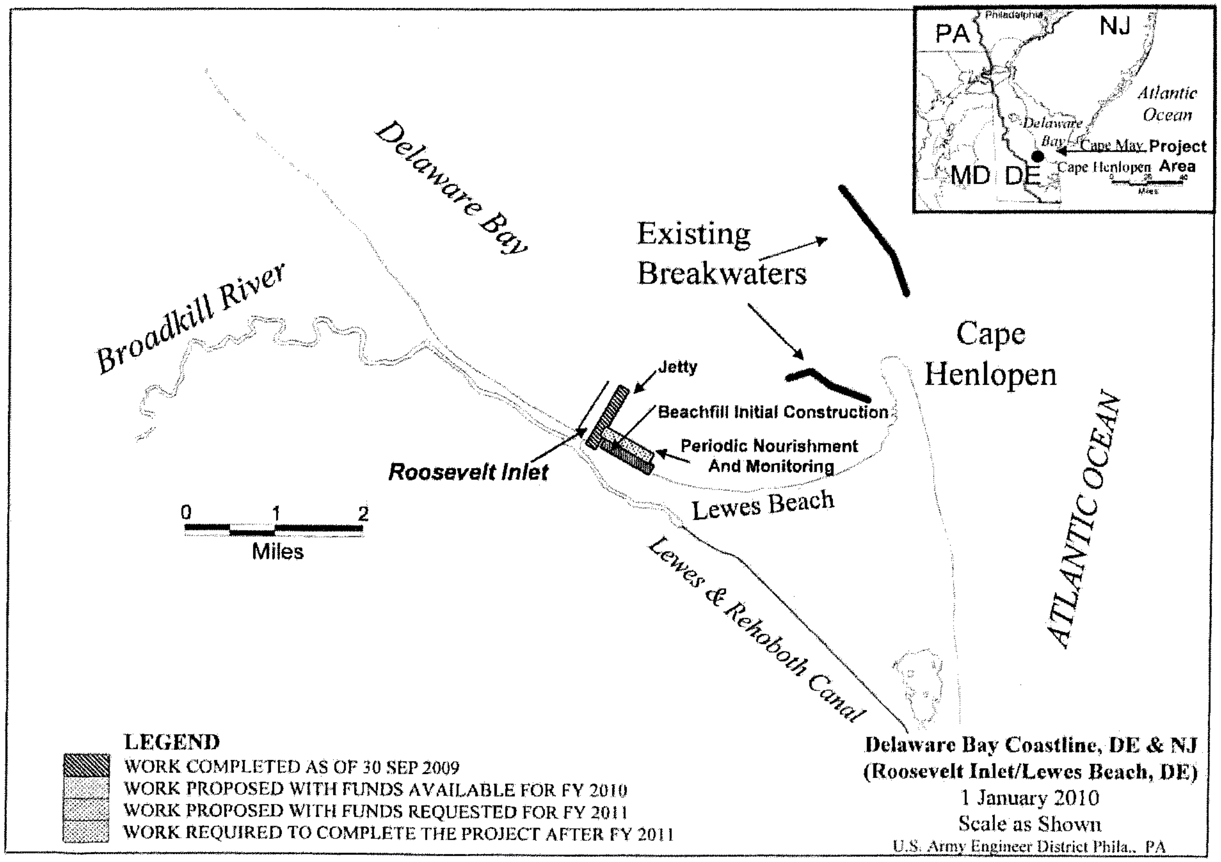
STATUS OF LOCAL COOPERATION: The Delaware Department of Natural Resources & Environmental Control (DNREC) is the non-Federal sponsor. The Project Cooperation Agreement (PCA) was executed on 1 November 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $29,544,100 is an increase of $1,063,100 from the latest estimate ($28,481,000) presented to Congress (FY 2006). This change includes the following item:

Item	Amount
Price Escalation on Construction Features	$1,063,100

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Assessment was completed in May 1997.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1999. Funds to initiate construction were appropriated in FY 2002. This project has a navigation mitigation component, which is 91.7 percent.


PA
Philadelphia
NJ
Atlantic
Ocean
Delaware
Bay
Cape May
Project
Area
MD
DE
Cape Henlopen
Miles
Delaware Bay
Broadkill River
Existing
Breakwaters
Cape
Henlopen
Jetty
Beachfill Initial Construction
Periodic Nourishment
And Monitoring
Roosevelt Inlet
Lewes Beach
0
1
2
Miles
Lewes & Rehoboth Canal
ATLANTIC OCEAN
LEGEND
WORK COMPLETED AS OF 30 SEP 2009
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
Delaware Bay Coastline, DE & NJ
(Roosevelt Inlet/Lewes Beach, DE)
1 January 2010
Scale as Shown
U.S. Army Engineer District Phila., PA

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: New York & New Jersey Harbor, New York and New Jersey (Continuing)

LOCATION: The Port of New York and New Jersey is located within the bi-state NY/NJ Harbor Estuary. The Federal navigation channels within the NY & NJ Harbor project include: Ambrose Channel; Anchorage Channel; Kill Van Kull and Newark Bay Channel; Arthur Kill Channel; Port Jersey Channel; and Bay Ridge Channel.

DESCRIPTION: This project consists of four separately authorized Federal navigation projects.

1.) The Kill Van Kull and Newark Bay Channels, NY and NJ project consists of deepening existing 40-foot project to 45 feet MLW. Unprogrammed work includes dredging of Pierhead Channel and Port Newark in the vicinity of Port Newark and Port Elizabeth.
2.) The New York Harbor and Adjacent Channels, Port Jersey Channel, NJ project consists of deepening the non-Federal access channel to 41 feet MLW from the Federal Anchorage Channel to its head of navigation. All work is programmed.
3.) The Arthur Kill, Howland Hook Marine Terminal, NY and NJ project consists of deepening the existing Federal 35-foot Arthur Kill Channel to 41 feet MLW from its confluence with the Kill Van Kull Channel to Howland Hook Marine Terminal in Staten Island, New York, and to 40 feet MLW from the Howland Hook Marine Terminal to the Tosco Oil Terminal oil facilities, New Jersey and New York, respectively. Also included within the Arthur Kill Channel are selected widenings and realignments. The Arthur Kill Project also provides for mitigation consisting of restoration and enhancement of approximately 23 acres of intertidal salt marsh. All work is programmed.
4.) The New York and New Jersey Harbor, NY and NJ, project consists of deepening the Ambrose Channel to 53 feet MLW; the Anchorage Channel, Kill Van Kull, Newark Bay, Port Jersey Channel, Bay Ridge Channel, and the Arthur Kill Channel to Howland Hook to 50 feet MLW or 52 feet MLW, if in rock or otherwise hard material. The project also includes mitigation for project impacts, and selective bulkheading. All work is programmed.

AUTHORIZATION: Supplemental Appropriations Act of 1985, Water Resources Development Acts of 1986, 1996, 1999, and 2000.

REMAINING BENEFIT - REMAINING COST RATIO: 7.3 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.7 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.8 to 1 at 6 5/8 percent (FY 2002).

BASIS OF BENEFIT - COST RATIO: The benefit-to-cost ratio shown above applies to the consolidation of the four authorized projects. The analysis reflects annualized costs and benefits, adjusted to October 2001 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Appropriation Requirement (COE)			$1,399,800,000
Programmed Construction		$1,325,300,000	
Unprogrammed Construction		74,500,000	
Estimated Appropriation Requirement (USCG)			4,050,000
Estimated Total Appropriation Requirement			1,403,850,000
Unprogrammed work:			
Future Non-Federal Reimbursement			234,362,800
Programmed Construction		225,990,800	
Unprogrammed Construction		8,372,000	
Estimated Federal Cost (Ultimate) (COE)			1,165,437,200
Programmed Construction		1,099,309,200	
Unprogrammed Construction		66,128,000	
Estimated Non-Federal Cost			1,314,698,800
Programmed Construction		1,289,906,800	
Cash Contribution	739, 541,000		
Other Costs	324,375,000		
Reimbursements:	225,990,800		
Unprogrammed Construction		24,792,000	
Cash Contribution	16,420,000		
Other Costs	0		
Reimbursements	8,372,000		
Total Estimated Programmed Construction Costs			$ 2,619,256,800
Total Estimated Unprogrammed Construction Costs			99,292,000
Total Estimated Project Cost			$2,718,548,800

ACCUM. PCT of EST FED. COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
	Programmed work:		
	KVK (a)		
	Phase I 40 ft.	100	Sep 1995
	Phase II 45 ft.	90	Indefinite
	Port Jersey Channel (b)	90	Aug 2010
	Arthur Kill Channel (c)	80	TBD
	NY & NJ Harbor (50 ft) (d)	0	Indefinite
	Ambrose	22	TBD
	Anchorage	58	TBD
	KVK	80	Nov2010
	Newark Bay	30	TBD
	Port Jersey	90	Aug2010
	Arthur Kill	0	TBD
	Bay Ridge	0	TBD
	Entire Project:	78	Indefinite

PHYSICAL DATA

a. Deepen the Kill Van Kill and Newark Bay from 35 ft to 40 ft then to 45 ft

b. Deepen the Port Jersey Channel from to 41 ft.

c. Deepen the Arthur Kill Channel from its confluence with the Newark Bay to the Howland Hook Marine Terminal from 35 ft. to 40 ft and then from 35 ft to 40 ft to the TOSCO Terminal.

d. NY & NJ Harbor: Deepen the above channels from their depths to 50 ft. deepen the Ambrose Channel from 45 ft. to 53 ft. the Anchorage Channel from45 ft. to 50 ft. and the Bay Ridge Channel from 40 ft. to 50 ft. Turning areas are provided for the Bay Ridge, Arthur Kill and Port Jersey Channels, along with mitigation for loss of benthic habitat and air quality.

SUMMARIZED FINANCIAL DATA: (continued)

		ACCUM PCT OF EST FED. COST
Allocations thru 30 September 2007	$783,592,000	
Allocation for FY2008	85,192,000	
Allocation for FY 2009	86,127,000	
Recovery Act Allocation through 31 Dec 2009	3,872,950	
Conference Allowance for FY 2010	90,000,000	
Allocation for FY 2010	90,000,000	
Allocation through FY 2010	1,048,783,950	75
Allocation Requested for FY 2011	57,000,000	79
Programmed Balance to Complete after FY 2011	219,516,050	
Unprogrammed Balance to Complete after FY 2011	74,500,000	

JUSTIFICATION: The Port of New York-New Jersey is the largest port on the East Coast, providing more than 228,000 port related jobs, $12 billion in economic activity, and serves more than 17 million consumers in the States of New York and New Jersey. Through its intermodal links, the Port provides second day access to another 80 million consumers in the northeast and mid-western states (35% of the nation). The Port annually receives and ships over $82 Billion (110 million long tons) of waterborne general cargo to all parts of the United States and throughout the world and receives petroleum and related products from ports in the Atlantic, and Gulf Coasts, the Caribbean, Africa, and the Persian Gulf.

FISCAL YEAR 2010: Funds will be applied as follows:

Initiate "base plus options" construction contracts		$57,000,000
NY & NJ Harbor Deepening (50 Feet) Area S–AN-2	27,000,000	
NY & NJ Harbor Deepening (50 Feet) Area S–NB-2/S-AK-1	30,000,000	
Continue construction contracts		$24,284,000
NY & NJ Harbor Deepening (50 Feet) Area S-KVK-1	16,700,000	
NY & NJ Harbor Deepening (50 Feet) Area S–AM-1b/A-AM-2b	7,584,000	
Planning, engineering, and design and Construction management		8,716,000
TOTAL		$90,000,000

Division: North Atlantic District: New York New York & New Jersey Harbor, NY and NJ

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue construction contracts		$40,100,000
NY & NJ Harbor Deepening (50 Feet) Area S–AN-2	14,000,000	
NY & NJ Harbor Deepening (50 Feet) Area S–NB-2/S-AK-1	26,100,000	
Initiate "base plus options" construction contracts		$ 9,000,000
NY & NJ Harbor Deepening (50 Feet) Area S-AK-2	4,000,000	
NY & NJ Harbor Deepening (50 Feet) Area S–AM-3	5,000,000	
Planning, engineering, and design and construction management		7,900,000
TOTAL		$57,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the Requirements listed below:

REQUIREMENTS OF LOCAL COOPERATION:	Payments during Construction and Reimbursement	Annual Operation, Maintenance and Replacement Costs
Pay 100 percent of costs to modify local service facilities, where necessary, for the construction of the project.	$278,195,000	$205,000
Pay 25-50 percent of the costs allocated to deep draft navigation during construction. 1/	755,961,000	
Pay for all lands, easements, rights of way and relocations	46,180,000	
Pay an additional 10 percent of the costs allocated to deep draft navigation within a period of 30 years following completion of construction which is partially offset by a credit allowed for the value of lands, easements, rights of way, and relocation.	234,362,800	

NON-FEDERAL COSTS (continued):

Contribute 50 percent of the annual charges for interest and amortization of the Federal first cost of the Port Jersey 41-foot project and 50 percent of the operations and maintenance until the improvement is serving/benefiting multiple owners/properties. (Approximately $3 million annually.) This condition is currently planned to be met by non-federal interests by fall 2009.If multiple owners are not established, the contribution could range to a maximum of $145,629,000.	0	
Total Non-Federal Costs	$1,314,698,800	$205,000

1/ The cost sharing percentage of this project includes the cost sharing of the general navigation features deepening to 45 feet at 25 percent and deepening of those features from 45 feet to 50 feet at 50%.

STATUS OF LOCAL COOPERATION:

(1) On the Kill Van Kull and Newark Bay Channels element, a Project Cooperation Agreement for the 45-foot deepening project was executed for the Phase II deepening on 13 January 1999.

(2) On the NY Harbor and Adjacent Channels, Port Jersey Channel element, the State of New Jersey and the Port Authority of New York and New Jersey (for the limited purpose of indemnification only) are the Non-Federal sponsors of the project. The project cooperation agreement was executed on 23 July 2002 with a modification of the agreement executed in July 11,2007.

(3) On the Arthur Kill, Howland Hook Marine Terminal element, The Port Authority of New York and New Jersey is the non-Federal sponsor for the project. The PCA was executed on 25 July 2002.

(4) On New York and New Jersey Harbor element, the Port Authority of NY & NJ is the Non-Federal sponsor for the project. The project cooperation agreement was executed on 28 May 2004.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $1,399,800,000 is the same as the latest estimate ($1,399,800,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

(1) On the Kill Van Kull and Newark Bay Channels element, the Final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 31 July 1981. A Supplemental EIS was filed with EPA on 14 February 1986. The Final Supplement to the EIS was filed with EPA on 13 February 1987. The Record of Decision was executed on 1 April 1987. An Environmental Assessment and Finding of No Significant Impact was issued on 30 April 1997 as part of the LRR for the Phase II deepening.

(2) On NY Harbor and Adjacent Channels, Port Jersey Channel element, the final EIS was filed with the Environmental Protection Agency (EPA) on 29 April 1988, and a final Environmental Assessment and Finding of No Significant Impact was issued June 2000. A Record-of-Decision was executed on 23 October 2000.

(3) On the Arthur Kill, Howland Hook Marine Terminal element, the Final Supplemental Environmental Impact Statement was filed with the Environmental Protection Agency on 16 September 1998. A Final Environmental Assessment for mitigation was issued in May 2001. The Record of Decision was executed on 29 August 2001.

(4) On the 50-foot project, New York and New Jersey Harbor Deepening element, the final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on 29 December 1999. The Record-of-Decision was signed on 6 June 2002.An Environmental Assessment and Finding of No Significant Impact was issued in January 2004.

(5) An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) were signed June 19, 2007 for the purpose of addressing impacts of Newark Bay Study Area (NBSA) instituted by USEPA in February 2004.

OTHER INFORMATION:

(1) All project elements were being funded separately prior to FY 2002. Congressional direction provided to the Secretary of the Army in the Energy and Water Development Appropriations, FY 2002, Conference Report consolidated the four project elements with the 50-foot deepening project authorized by the Water Resources Development Act of 2000.

(2) On the Kill Van Kull and Newark Bay Channels element, funds to initiate construction were appropriated in FY 1985.

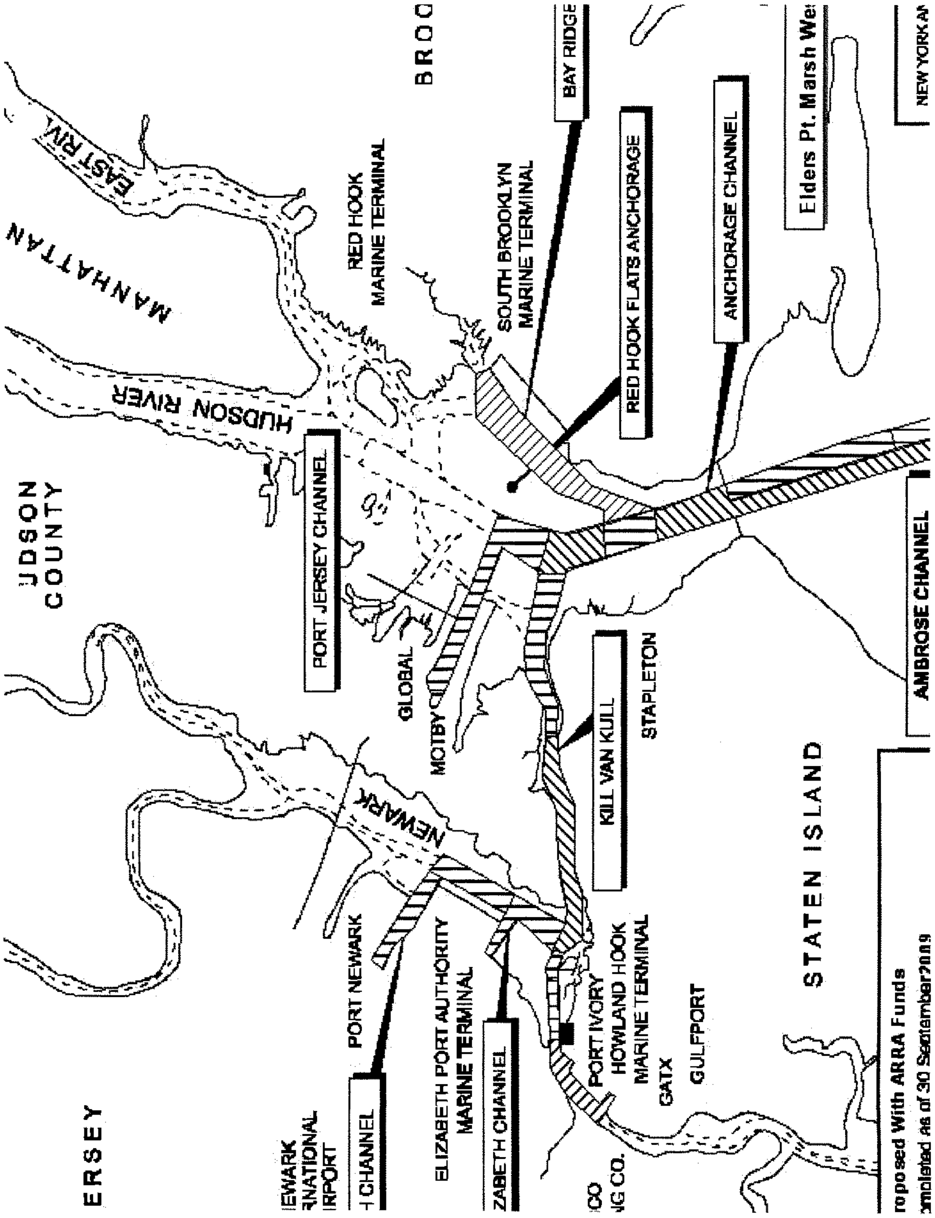
(3) On the NY Harbor and Adjacent Channels, Port Jersey Channel element, funds to initiate preconstruction engineering and design were appropriated in FY 1988 and funds to initiate construction were appropriated in FY 1994.

(4) On the Arthur Kill, Howland Hook Marine Terminal element, funds for preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 2001.

(5) On the 50-foot New York and New Jersey Harbor Deepening element, funds to initiate preconstruction engineering and design were appropriated in FY 2000 and funds to initiate construction were appropriated in FY 2002.

(6) The Port Jersey Channel PCA was modified on 17 July 2007 to facilitate consolidated implementation of the cost-shared 41' channel with the State of New Jersey's advancement of the 50' channel.

(7) The 50-foot New York and New Jersey Harbor Deepening PCA was modified on 21 Sep 09 to facilitate implementation of the beneficial reuse of the dredged material from the S-AN-1b construction contract through the construction of a salt marsh island in Jamaica Bay, New York.


MANHATTAN
EAST RIV
HUDSON RIVER
HUDSON COUNTY
BROO
RED HOOK MARINE TERMINAL
SOUTH BROOKLYN MARINE TERMINAL
BAY RIDGE
RED HOOK FLATS ANCHORAGE
ANCHORAGE CHANNEL
Elders Pt. Marsh We
NEW YORK A
PORT JERSEY CHANNEL
GLOBAL
MOTBY
KILL VAN KULL
STAPLETON
AMBROSE CHANNEL
NEWARK
STATEN ISLAND
PORT NEWARK
ELIZABETH PORT AUTHORITY MARINE TERMINAL
PORT IVORY
HOWLAND HOOK MARINE TERMINAL
GATX
GULFPORT
ERSEY
NEWARK
RNATIONAL
IRPORT
H CHANNEL
ZABETH CHANNEL
CO
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roposed With ARRA Funds
ompleted as of 30 September 2009

APPROPRIATION TITLE: Construction— Channels and Harbors (Navigation)

PROJECT: Norfolk Harbor and Channels, Craney Island, VA (Continuing)

LOCATION: Craney Island Dredged Material Management Area (CIDMMA) is a 2,500 acre man-made containment area located along the south bank of the James River in Portsmouth, VA.

DESCRIPTION: CIDMMA is federally owned and operated and is used by private interests, local municipalities, and Federal and Commonwealth Government agencies for disposal of dredged material from Norfolk Harbor and adjacent waterways. Virginia Port Authority (VPA) has expressed interest in expanding the containment area to the east. The expansion would provide additional dredge material storage capacity for the Federal Government and create land for a new port facility adjacent to the Norfolk Harbor Channel. VPA is the non-Federal sponsor and signed a design agreement in September 2007.

AUTHORIZATION: The original CIDMMA was authorized by the River and Harbor Act of 1946 and constructed from 1956 through 1958. The expansion is authorized by the Water Resources Development Act of 2007 (Public Law 110-114), Section 1001 (45).

REMAINING BENEFIT – COST RATIO: 3.6 at 7 percent.

TOTAL BENEFIT – COST RATIO: 3.6 at 7 percent.

INITIAL BENEFIT – COST RATIO: 3.6 at 7 percent (FY 2010).

BASIS OF BENEFIT – COST RATIO: Benefits are from the latest available evaluation approved in December 2007 at 2007 price level.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT OF EST FED COST	STATUS (1JAN 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$34,440,000		Entire Project	0	TBD
Estimated non-Federal Cost		$716,154,000				
Cash Contribution	$716,654,000					
Other Costs	0					
Reimbursements	0					
Total Estimated Project Cost		$750,594,000				

Division: North Atlantic District: Norfolk Norfolk Harbor, Craney Island, VA

SUMMARIZED FINANCIAL DATA: (continued)

Allocations to September 2007	$ 3,175,000	
Allocations for FY 2008	$ 2,765,000	
Allocations for FY 2009	$ 0	
Conference Amount for FY 2010	$ 100,000	
Recovery Act Allocations through 31 Dec 2009	$ 0	
Allocation for FY 2010	$ 100,000	
Allocation through FY 2010	$ 6,040,000	18
Allocation Requested for FY 2011	$ 1,000,000	20
Programmed Balance to Complete After FY2011	$ 27,400,000	

PHYSICAL DATA

Increase dredged material capacity of Craney Island and expand the containment area to the east to facilitate construction for a new port facility adjacent to the Norfolk Harbor Channel.

JUSTIFICATION: The Craney Island Dredged Material Management Area serves Norfolk Harbor, one of the busiest ports in the Nation and the center of substantial industrial, commercial and military activity. The Port is the eighth largest container port in the nation, and the third largest on the East Coast in terms of container volume. More than 55 percent of the containerized cargo handled at Norfolk Harbor originates in or is destined for locations outside Virginia. The Craney Island expansion area is a dual purpose project which (1) Extends the useful life of Craney Island & (2) creates land for port development. Lack of funding will create a loss of economic efficiency as disposal of material would have to utilize more expensive ocean disposal sooner and cargo would be shipped along more expensive routes. The Craney Island Dredged Material Management Area serves all the port facilities in Hampton Roads and the Elizabeth River (averaging 48 million tons annually) including the Norfolk Naval Station, several container terminals and the Nations largest coal loading facility at Lambert Point. The project will generate 54,000 jobs.

Annual Benefits	Amount
Navigation	$258,000,000

FISCAL YEAR 2010: The current amount ($100,000) is being used to negotiate the Project Partnership Agreement with the Virginia Port Authority.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Planning, Engineering and Design	$1,000,000
Total	$1,000,000

Division: North Atlantic District: Norfolk Norfolk Harbor, Craney Island, VA

NON-FEDERAL COSTS: In accordance with the cost sharing and financial concepts reflected in the Water Resources Development Act of 1986, as amended, the report of the Chief of Engineers dated October 24, 2006 and the Water Resources Development Act of 2007, the non-Federal sponsors must comply with the requirements listed below:

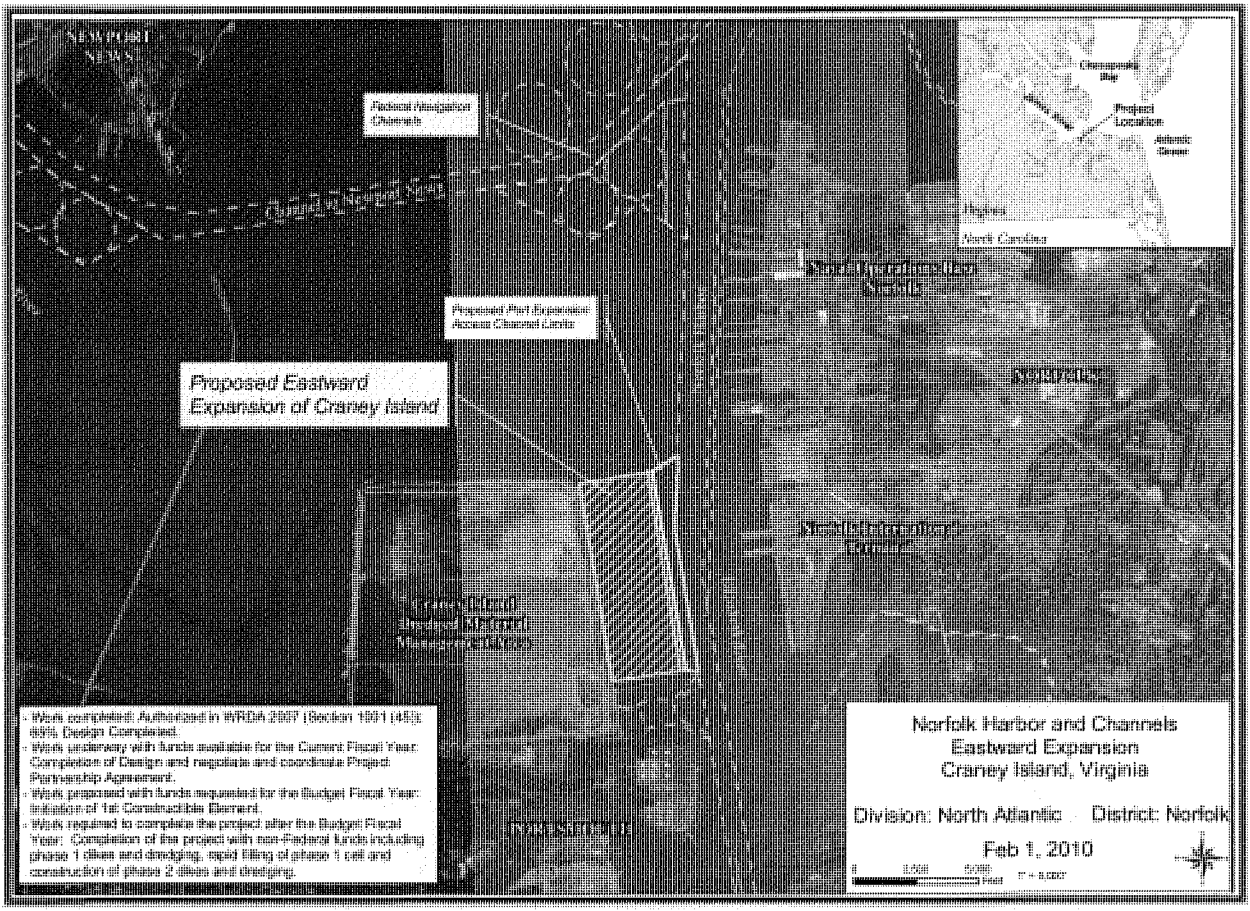
Requirements of Local Corporation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement costs
Pay the balance of the total project cost above the Federal share, to include costs to relocate utilities, roads and other facilities, where necessary for the construction of the project.	$716,154,000	
Provide all lands, easements and rights of way and perform, or assure the performance of any relocations determined to be necessary for the initia construction and subsequent operation and maintenance of the project.	0	
With regard to the access channels, pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.		$209,000
Total Non-Federal Costs	$716,154,000	$209,000

STATUS OF LOCAL COOPERATION: The Virginia Port Authority is the local sponsor for this project. Weekly meetings are held with the VPA and their consultants, the Craney Island Design Partners, on the status of this project. The Sponsor will be raising $150 million through bonds.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $34,440,000 is the same as the latest estimate ($34,440,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with the Environmental Protection Agency (EPA) on May 26, 2006. Clean Water Act, Coastal Zone Management Act, cultural resources, and Endangered Species Act compliance is complete.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were allocated in FY 2007. Cost sharing for the project is based upon the recommendations of the report of the Chief of Engineers dated October 24, 2006 (4 percent Federal and 96 percent non-Federal). Section 1001(45) of WRDA 2007 authorizes the project at a Federal cost share of 50 percent.


NEWPORT NEWS
Federal Navigation Channels
Channel to Newport News
Proposed Port Expansion Access Channel Limits
Proposed Eastward Expansion of Craney Island
Craney Island Dredged Material Management Area
Naval Operations Base Norfolk
NORFOLK
Norfolk International Terminals
PORTSMOUTH
Chesapeake Bay
Project Location
Atlantic Ocean
Virginia
North Carolina
Norfolk Harbor and Channels
Eastward Expansion
Craney Island, Virginia
Division: North Atlantic District: Norfolk
Feb 1, 2010
0 2,500 5,000 Feet 1" = 5,000'

- Work completed: Authorized in WRDA 2007 (Section 1001 (45)); 65% Design Completed.
- Work underway with funds available for the Current Fiscal Year: Completion of Design and negotiate and coordinate Project Partnership Agreement.
- Work proposed with funds requested for the Budget Fiscal Year: Initiation of 1st Constructible Element.
- Work required to complete the project after the Budget Fiscal Year: Completion of the project with non-Federal funds including phase 1 dikes and dredging, rapid filling of phase 1 cell and construction of phase 2 dikes and dredging.

1 February 2010

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Aquatic Ecosystem Restoration

Investigations

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) MARYLAND								
Anacostia River and Tributaries,	Annual Allocation	2,035,000	499,000	514,000	551,000	288,000	183,000	
Comprehensive Plan, MD and DC	ARRA Allocation				0	0		
Baltimore District	Total Allocations	2,035,000	499,000	514,000	551,000	288,000	183,000	0

The study area includes the entire Anacostia River watershed encompassing approximately 180 square miles in Montgomery and Prince George's Counties, Maryland and the District of Columbia. The Anacostia River has one of the most densely populated watersheds within the Chesapeake Bay basin. The watershed has suffered from years of urbanization and environmental neglect but major restoration efforts since 1987 are now beginning to improve conditions.

The Anacostia Restoration Plan (ARP) entails using GIS-based existing conditions maps to identify potential restoration opportunities. These opportunities were field-investigated and modeled using the Center for Watershed Protection's Watershed Treatment Model and then scored, ranked and prioritized with criteria developed by the jurisdictional stakeholders. The ARP includes a discussion of programmatic and policy opportunities. A framework for the restoration plan will continue feasibility-phase efforts to include completing an existing conditions report and an action plan for each sub-watershed and tidal portion, as well as an action plan that scores, ranks, and prioritizes potential opportunities across the whole watershed and continued engagement with sub-watershed citizen groups. The non-Federal sponsor is the Metropolitan Washington Council of Governments who executed cost-sharing agreement in September 2006 and an amendment in September 2007.

Fiscal Year 2010 funds are being used for the final draft restoration plan to be released for public review.

Fiscal Year 2011 funds will be used to publish final report. The estimated cost of the feasibility phase is $3,268,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$3,669,000
Reconnaissance Phase (Federal)	401,000
Feasibility Phase (Federal)	1,634,000
Feasibility Phase (Non-Federal)	1,634,000

The reconnaissance phase was completed in September 2007. The feasibility study is scheduled for completion in March 2011.

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN – (Aquatic Ecosystem Restoration) MARYLAND								
Eastern Shore – Mid-Chesapeake Bay Island, MD Baltimore District	Annual Allocation		52,000	318,000	156,000	314,000	483,000	
	ARRA Allocation				0	0		
	Total Allocations	5,250,000	52,000	318,000	156,000	314,000	483,000	3,927,000

The Mid Chesapeake Bay Island Ecosystem Restoration project will create 2,070 acres of remote island habitat in lower Dorchester County, Maryland through the beneficial use of dredged material. The project will reclaim two islands, one at James Island and the second at Barren Island and restore lost wetlands on both islands. James Island, an uninhabited island one mile offshore from Taylor's Island, consists of three eroding island remnants totaling less than 100 acres. Barren Island, also an uninhabited island, consists of three eroding island remnants totaling about 180 acres. The project also has a protection/restoration feature at Barren Island through the construction of sills along the shoreline and breakwaters for protection of approximately 1,325 acres of submerged aquatic vegetation situated south and southeast of Barren Island.

The Chief's Report for the project was signed on 24 August 2009. The recommended plan is for a 2,070-acre James Island restoration, 45 percent uplands and 55 percent wetlands, and environmental restoration at Barren Island. The recommended project, estimated to costs $2,890,000,000, with an estimated Federal cost of $1,880,000,000 and an estimated non-Federal cost of $1,010,000,000, would restore both islands to their historical dimensions and restore lost wetlands and habitats. No benefit-cost ratio has been computed for this project because aquatic ecosystem restoration project benefits are not quantifiable in monetary terms. The Maryland Port Administration understands the requirements of local cooperation for preconstruction engineering and design requirements and is expected to be the non-Federal sponsor for this effort. The design agreement is scheduled for execution in September 2010. Preconstruction engineering and design (PED) will ultimately be cost-shared at the rate for the project to be constructed, but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal construction in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Effort Costs	$7,000,000	Total Estimated Preconstruction Engineering and Design Costs	$7,000,000
Initial Federal Share	5,250,000	Ultimate Federal Share	4,550,000
Initial Non-Federal Cost	1,750,000	Ultimate Non-Federal Cost	2,450,000

Consistent with the cost-sharing and financing concepts enacted by the Water Resources Development Acts of 1986 and 1996, as amended, local interest are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

Fiscal year 2010 funds are being used execute the design agreement and initiate design.

Fiscal year 2011 funds will be used to continue preconstruction engineering and design. The preconstruction engineering and design effort is scheduled for completion in September 2013.

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) NEW JERSEY								
Hudson-Raritan Estuary,	Annual Allocation		1,446,000	450,000	497,000	224,000	200,000	
Hackensack Meadowlands, NJ	ARRA Allocation				0	0		
New York District	Total Allocations	2,850,000	1,446,000	450,000	497,000	224,000	200,000	33,000

The study area encompasses approximately 8,450 acres of tidal wetlands in the Hackensack River Basin located in Bergen Essex and Hudson Counties, New Jersey. The Hackensack Meadowlands the largest remaining brackish tidal wetland complex in the Greater New York area. The area, about five miles west of Manhattan Island, is urban to suburban and has been heavily industrialized since the mid-nineteenth century. Since the 1890's, deforesting of the cedar stands, channel modifications, levee construction, and damming of the Hackensack River and its tributaries for irrigation and water supply purposes, has changed the estuary. Furthermore, the industrial activities, effluents discharges from local sources and highway stormwater systems, and leachates from former garbage dumps within the estuary, have contaminated portions of the meadowlands and further degraded the wetlands producing an unfavorable environment for fish and wildlife, including wading birds, shorebirds, raptors, anadromous fish, estuarine fish, and terrapins.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies for the Hackensack Meadowlands. The interim feasibility study for the Hackensack Meadowlands is assessing items that have a Federal interest for ecosystem restoration, including contaminant reduction measures, enhancement of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality within the Hackensack Meadowlands. The New Jersey Meadowlands Commission executed a cost-sharing agreement in April 2003.

Fiscal Year 2010 funds are being used to continue the feasibility phase, including coordination with the USFWS, and preparation of the feasibility report and environmental impact statement for the selected restoration sites.

Fiscal Year 2011 funds will be used to continue the feasibility phase, including completion of the draft report and coordination with local interests. The estimated cost of the feasibility phase is $5,200,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. The estimated cost of the external peer review was added to the feasibility phase for $250,000, which is 100 percent Federal funding. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$5,450,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	2,850,000
Feasibility Phase (Non-Federal)	2,600,000

The reconnaissance phase was completed in April 2003. The feasibility study is scheduled for completion in September 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) NEW JERSEY								
Hudson-Raritan Estuary,	Annual Allocation		2,104,000	492,000	717,000	170,000	200,000	
Lower Passaic River, NJ	ARRA Allocation				0	0		
New York District	Total Allocations	4,500,000	2,104,000	492,000	717,000	170,000	200,000	817,000

The study area is located in Essex County, New Jersey, about five miles west of Battery of New York City and encompasses 17 miles of the lower Passaic River from the river's confluence with Newark Bay to Dundee Dam. The area is urban to suburban and has been heavily industrialized since the mid-nineteenth century. This industrial activity has resulted in the degradation of the wetlands, discharges of effluents into the river, and dumping of industrial waste resulting in contaminated sediments in the river that is unfavorable for fish and wildlife habitat.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies in the Lower Passaic River Basin. The feasibility study for the Lower Passaic River Basin will assess items that have a Federal interest for ecosystem restoration, including contaminant reduction measures, creation of wetlands, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality within the Lower Passaic River and sections of Newark Bay. The non-Federal sponsor is the New Jersey Department of Transportation, who executed cost-sharing agreement in June 2003. The restoration feasibility study is integrated with a CERCLA Superfund Remedial Investigation/Feasibility Study via the Urban Rivers Restoration Initiative with US Environmental Protection Agency.

Fiscal Year 2010 funds are being to continue the feasibility phase, including finalizing the ecosystem restoration plan that is being coordinated with the EPA's early action plans for the lower 8.2 miles of the lower Passaic River in conjunction with their Superfund Remedial Investigation.

Fiscal Year 2011 funds will be used to continue the feasibility phase, including preparation of the Comprehensive Restoration Plan for the watershed. The estimated cost of the feasibility phase is $9,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$9,000,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	4,500,000
Feasibility Phase (Non-Federal)	4,500,000

The reconnaissance phase was completed in June 2003. The feasibility study is scheduled for completion in September 2014.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) NEW YORK								
Hudson-Raritan Estuary,	Annual Allocation		5,694,000	313,000	956,000	157,000	200,000	
NY and NJ	ARRA Allocation				0	0		
New York District	Total Allocations	9,740,000	5,694,000	313,000	956,000	157,000	200,000	2,420,000

The Hudson Raritan Estuary study area includes the Port of New York and New Jersey. The study is evaluating restoration measures for eight water systems within the estuary which include: Jamaica Bay, Lower Bay New York Bay, Lower Raritan River, Arthur Kill and Kill Van Kull, Newark Bay, Hackensack River and Passaic Rivers; Lower Hudson River, Harlem River, East River, and Western Long Island Sound and Upper Bay. These waters and the surrounding shoreline, mudflats, intertidal marshes, and adjacent upland areas provide valuable habitat for fish, and wildlife resources, and migrating birds along the Atlantic flyway. The area is the habitat for several endangered species, such as, the shortnosed sturgeon, sea turtles, peregrine falcons, piping plover, and rosette terns.

The reconnaissance report for the Hudson-Raritan Estuary, approved in July 2000, found there is a Federal interest for further studies. The feasibility study is assessing the viability of restoring balance to overall ecological functions and values within the Hudson-Raritan Estuary through the development of a Comprehensive Restoration Plan (CRP). The CRP was developed in partnership with the NY-NJ Hudson-Raritan Estuary Program and regional stakeholders to set forth a consensus vision, master plan and strategy to create future restoration opportunities and restore degraded habitat for coastal wetlands, oyster reefs, and waterbirds. In addition, contaminant reduction measures, water quality improvements, and alteration of hydrology/hydraulics to improve water movement and quality will be evaluated. The feasibility cost-sharing agreement was executed in July 2001 with the Port Authority of New York and New Jersey.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study, including Environmental Impact Statement, ecological benefits and costs analyses, public outreach, coordination with regional stakeholders, and finalize the draft CRP.

Fiscal Year 2011 funds will be used to continue the feasibility study, including completion of the Environmental Impact Statement, benefits and costs analyses of potential restoration plans and continuation of the public outreach program. The estimated cost of the feasibility phase is $19,000,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$19,240,000
Reconnaissance Phase (Federal)	240,000
Feasibility Phase (Federal)	9,500,000
Feasibility Phase (Non-Federal)	9,500,000

The reconnaissance phase was completed in July 2001. The feasibility study is scheduled for completion in September 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERIGN AND DESIGN – (Aquatic Ecosystem Restoration) NEW YORK								
Jamaica Bay, Marine Park and	Annual Allocation		0	0	0	170,000	170,000	
Plumb Beach, NY	ARRA Allocation				0	0		
New York District	Total Allocations	1,500,000	0	0	0	170,000	170,000	1,160,000

Jamaica Bay is located within Queens and Brooklyn in New York City. The Bay is about 8 miles long and 4 miles wide covering 26 square miles and opens to the Atlantic Ocean via Rockaway Inlet. Marine Park and Plumb Beach are located on the north side of Rockaway Inlet. The project area is a vital link in the northeast regional coastal ecology with over 300 species of birds utilizing the bay as a primary junction along the Atlantic Flyway, a major migratory route for east coast waterfowl. In addition, various parts of the bay have been declared critical habitat for federally protected species such as piping plovers, sea turtles, and short nose sturgeons. The bay also serves as a spawning and nursing habitat for many species of anadromous and estuarine fish. The feasibility study recommended ecosystem projects at eight specific sites to restore the overall Bay, including the Marine Park and Plumb Beach areas. The recommended ecosystem projects, estimated to cost $200,000,000, with an estimated Federal cost of $130,000,000 and an estimated Non-Federal cost of $70,000,000, would restore the overall Bay through wetland restoration of aquatic and terrestrial habitats, providing alterations for improved circulation and flushing patterns and bay re-contouring. No benefit-cost ratio has been computed for this project because it is an aquatic ecosystem restoration project and benefits are not quantifiable in monetary terms. The potential project sponsor is the New York State Department of Environmental Protection, who fully understands the cost-sharing requirements for the project and are ready to execute the design agreement in December 2010. Preconstruction, engineering and design (PED) will ultimately be cost shared for the project to be constructed but will be financed through PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	$2,000,000	Total Estimated Preconstruction Engineering and Design Cost	$2,000,000
Initial Federal Share	1,500,000	Ultimate Federal Share	1,300,000
Initial Non-Federal Share	500,000	Ultimate Non-Federal Share	700,000

Consistent with the cost-sharing and financed concepts enacted by the Water Resources Development Acts of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

Fiscal Year 2010 funds are being used to initiate the preconstruction engineering and design activities, including detailed cost estimates and design of the project's recommended plans. Fiscal Year FY 2011 funds will be used to continue the preconstruction engineering and design activities. The design phase is scheduled for completion in September 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERIGN AND DESIGN – (Aquatic Ecosystem Restoration) NEW YORK								
Lynnhaven River Basin,	Annual Allocation		0	0	0	0	50,000	
Virginia Beach, VA	ARRA Allocation				0	0		
Norfolk District	Total Allocations	1,500,000	0	0	0	0	50,000	1,450,000

The Lynnhaven River Basin is located in Virginia Beach, Virginia, on the south shore of the Chesapeake Bay. The river drains approximately 50 square miles of watershed in southeastern Virginia and flows northerly emptying into the Chesapeake Bay. The river basin was once a highly productive ecosystem, producing the world famous Lynnhaven oyster. However, residential and commercial development, and the loss of wetlands and forested buffers have increased sedimentation, which degraded the ecosystem and water quality, causing the oyster population to decline to essentially no marketable production today. Only 900 acres of wetlands exist today, half of the acreage present 30 years ago. The feasibility study recommended ecosystem projects at five specific sites to restore the watershed. The recommended ecosystem projects, estimated to cost $30,000,000, with an estimated Federal cost of $19,500,000 and an estimated Non-Federal cost of $10,500,000, would restore the watershed through ecosystem restoration measures to improve water quality, restore wetlands, submerged aquatic vegetation, and fish and wildlife habitats, and improve the river bottom material by dredging or other methods and eliminate siltation in and around the watershed. No benefit-cost ratio has been computed for this project because it is an aquatic ecosystem restoration project and benefits are not quantifiable in monetary terms. The potential project sponsor is the City of Virginia Beach, VA, who fully understands the cost-sharing requirements for the project and is ready to execute the design agreement in September 2011. Preconstruction, engineering and design (PED) will ultimately be cost shared for the project to be constructed but will be financed through PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost-sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Cost	$2,000,000	Total Estimated Preconstruction Engineering and Design Cost	$2,000,000
Initial Federal Share	1,500,000	Ultimate Federal Share	1,300,000
Initial Non-Federal Share	500,000	Ultimate Non-Federal Share	700,000

Consistent with the cost-sharing and financed concepts enacted by the Water Resources Development Acts of 1986 and 1996, local interests are required to provide all lands, easements, right-of-ways, relocations, and disposal areas; and pay 35 percent of all costs allocated to aquatic ecosystem restoration.

Fiscal Year 2011 funds will be used to negotiate and execute the design agreement with the non-Federal sponsor. The design phase is scheduled for completion in September 2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) NEW HAMPSHIRE								
Merrimack River Watershed	Annual Allocation		1,401,000	233,000	215,000	170,000	200,000	
Study, NH and MA	ARRA Allocation				0	0		
New England District	Total Allocations	5,550,000	1,401,000	233,000	215,000	170,000	200,000	3,331,000

The Merrimack River originates in Franklin, New Hampshire at the confluence of the Pemigewasset and Winnipesaukee Rivers and flows southerly towards the Massachusetts border then easterly towards the coast. The Merrimack River basin encompasses approximately 5,010 square miles and is the fourth largest watershed in New England. The main stem of the river is about 116 miles in length with about 74 miles in New Hampshire and 42 miles in Massachusetts. The headwaters are located in the White Mountain National Forest. The estuary includes 2,500 acres of coastal wetlands and is bordered by the Plum Island National Wildlife Refuge. Existing uses include aquatic habitat for fish and wildlife, water supply, recreation, hydropower production and commercial shell fishing. The Merrimack River supports anadromous fisheries and endangered species. Although significant improvements have been made to the overall quality of the Merrimack River, many problems exist including lack of fish passage, loss of habitat, degraded wetlands and poor water quality. The Corps study will help define the overall condition of the watershed and allow for science-based decisions on prioritized investments to improve water quality and ecosystem restoration. The Section 905(b) analysis was certified on 25 January 2002, which found there was a Federal interest to pursue comprehensive studies in the Merrimack River Watershed. A cost-sharing agreement was executed with the City of Lowell, representing the Merrimack Community Coalition, on 20 February 2002 for the Lower Merrimack River Basin (LMRB) study. Phase I of the LMRB study was completed in August 2006. A second cost-sharing agreement was signed with the New Hampshire Department of Environmental Services on 25 August 2006 to begin investigations of the Upper Merrimack River Basin (UMRB).

Fiscal Year 2010 funds are being used to continue UMRB investigations, including additional computer modeling between Manchester and Lincoln, New Hampshire. Stream flow analysis will be added to the model to analyze aquatic habitat requirements and competing water use scenarios during low flow conditions. These funds will also be used for Phase 2 studies of the LMRB; including additional assessments of tributary water quality and their impact on the lower main stem river, use attainability analysis and continuation of nutrient (phosphorus and nitrogen) impact evaluations.

Funds requested for Fiscal Year 2011 will be used to continue UMRB and LMRB investigations, including additional watershed modeling, data collection and analysis of restoration alternatives.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) NEW HAMPSHIRE							
Merrimack River Watershed Study, NH and MA New England District							

The estimated cost of the feasibility study is $7,200,000, which is to be cost shared on a 75-25 percent basis by Federal and non-Federal interests. The 50-50 cost sharing percentage by the Federal and non-Federal interest was modified by Section 2010 of WRDA 2007. A Summary of the study cost sharing is as follows:

	Original	Revised
Total Estimated Study Cost	$7,350,000	$7,350,000
Reconnaissance Phase (Federal)	150,000	150,000
Feasibility Phase (Federal)	3,600,000	5,400,000
Feasibility Phase (Non-Federal)	3,600,000	1,800,000

The reconnaissance phase was completed in February 2002. The feasibility study is scheduled to be completed in September 2015.

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) MASSACHUSETTS								
Pilgrim Lake, Truro and	Annual Allocation		368,000	98,000	92,000	90,000	100,000	
Provincetown, MA	ARRA Allocation				0	0		
New England District	Total Allocations	842,000	368,000	98,000	92,000	90,000	100,000	94,000

The study area encompasses the Massachusetts and Cape Cod Bays (MCCB) coastal shoreline and associated waters within the Commonwealth of Massachusetts, including the EPA designated national estuary of MCCB. The biologically diverse ecosystem created by the many natural salt marshes along the Massachusetts coast has historically provided exceptionally productive fish and wildlife habitat. Salt marshes provide significant economic and environmental benefits for the region by providing flood storage, filtering pollutants, and supporting commercial fisheries as well as recreational fishing and tourism. Over the past century, many of these natural salt marshes have been lost or degraded by the construction of transportation facilities and other coastal development. There are 25 navigation and 11 beach erosion control projects in this region of Massachusetts. Several of these projects involved the disposal of dredged material in coastal wetlands or salt marshes such as the Green Harbor project. Dredged material was disposed of in Town Marsh filling approximately 35 acres of productive salt marsh above mean high tide, resulting in a relatively unproductive upland habitat. Studies will evaluate this and other sites to determine measures to restore the ecological productivity of the MCCB coastline. This study is consistent with the objectives of Coastal America initiative to restore all degraded salt marshes in the Commonwealth and is supported by the Executive Office of Energy and Environmental Affairs, Department of Transportation and numerous Federal agencies, as evidenced by their signing a Memorandum of Understanding to restore Massachusetts wetlands. The reconnaissance report, certified in August 2001, recommended feasibility phase studies to identify potential solutions to restore lost or degraded salt marshes by restoring the natural tidal exchange and ecological productivity of these areas.

A feasibility cost-sharing agreement was executed with the Mystic Valley Development Commission on 15 October 2002 to study environmental restoration measures along the Malden River in the communities of Malden, Medford and Everett, Massachusetts. A second feasibility cost-sharing agreement was executed on 1 April 2005 with the Massachusetts Department of Coastal Zone Management to study environmental restoration measures at Pilgrim Lake in Truro and Provincetown, Massachusetts. Tidal flow into Pilgrim Lake was blocked by the construction of the railroad and Route 6 Highway. Tidal exchange is now limited to a single 4-foot diameter culvert. Feasibility studies will evaluate alternatives to restore the natural tidal exchange and ecological productivity of the 490-acre lake and surrounding salt marsh. The project sponsor has expressed interest in expanding the Pilgrim Lake Feasibility Study to include investigation of the adjacent Herring River.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: North Atlantic

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) MASSACHUSETTS							
Pilgrim Lake, Truro and Provincetown, MA New England District							

Fiscal Year 2010 funds are being used to continue feasibility study of Pilgrim Lake and Herring River, including evaluation of restoration alternatives.

Funds requested for Fiscal Year 2011 will be used to continue the Pilgrim Lake and Herring River Interim Feasibility Study, including development of restoration alternatives for the Herring River and preparation of the draft Feasibility Report and Environmental Assessment. The estimated cost of the feasibility phase is $1,400,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$1,542,000
Reconnaissance Phase (Federal)	142,000
Feasibility Phase (Federal)	700,000
Feasibility Phase (Non-Federal)	700,000

The reconnaissance phase was completed in October 2002. The feasibility study is scheduled to be completed in December 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: North Atlantic

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) PENNSYLVANIA								
Schuylkill River Basin,	Annual Allocation		460,000	0	0	90,000	214,000	
Wissahickon Watershed, PA	ARRA Allocation				259,000	0		
Philadelphia District	Total Allocations	1,375,000	460,000	0	259,000	90,000	214,000	352,000

This study area is located in southeastern Pennsylvania, along the Wissahickon Creek, a tributary to the Schuylkill River. The 25-mile long creek is about 13 miles upstream of the confluence with the Delaware River in Philadelphia, Pennsylvania, draining an approximate area of 64 square miles. High water flows during storm events have degraded the ecosystem and water quality within the creek due to sedimentation from streambank erosion, as well as causing flood damages in the communities of Whitpain, Lower Gwynedd, Whitemarsh, Springfield, Ambler, West Ambler, Lansdale, Ft. Washington and Abington, Pennsylvania. Major floods occurred in 1973, 1975, 1976, 1978, 1979, 1982, 1996, and 1999.

The Section 905 (b) analysis was certified on August 16, 2002. This interim feasibility study will evaluate potential solutions for ecosystem restoration, flood plain management measures, streambank erosion control, water quality management, stream flow and corridor management, and geographic information system modeling, as well as opportunities for local flood damage reduction measures in the City of Philadelphia, Pennsylvania. The feasibility cost-sharing agreement was executed on April 12, 2004. The City of Philadelphia is the sponsor and fully understands the cost-sharing requirements for this feasibility study. Additional feasibility studies within the Wissahickon Creek watershed will be negotiated with Montgomery County and the Pennsylvania Department of Environmental Protection upon prioritization of the studies by them and the availability of local funding.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study, including problem identification, and initial screening of alternatives.

Fiscal Year 2011 funds will be used to continue the feasibility phase of the study, including further screening of alternatives, incremental cost analysis, environmental benefits, and plan optimization. The estimated cost of the feasibility phase is $2,500,000, which is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,625,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase was completed April 2004. The feasibility study is scheduled for completion in September 2013.

Study		Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – (Aquatic Ecosystem Restoration) VIRGINIA								
Upper Rappahannock River,	Annual Allocation		0	98,000	96,000	90,000	200,000	
Comprehensive Plan, VA	ARRA Allocation				0	0		
Norfolk District	Total Allocations	1,298,000	0	98,000	96,000	90,000	200,000	814,000

The Rappahannock River Basin, a 2,800 square miles watershed, is the fourth largest within the Chesapeake Bay Watershed. The area is primarily dominated by forest and agricultural use. The study will focus on the upstream tributaries, including the Rapidan River, a 600-square-mile sub-basin, which begins at the confluence of the Upper Rappahannock River about 14 miles west of Fredericksburg, VA.

The Section 905 (b) report was completed in June 2009 and found there is a Federal interest for further studies. The feasibility study is assessing the viability of restoring balance to overall ecological functions and values, evaluate potential aquatic ecosystem restorations solutions in the upstream tributaries areas, and evaluate the addition of improved spawning and foraging areas for fish and wildlife, restoration of the riparian habitat, and improving water quality. The potential sponsor for the feasibility phase of the study is the Commonwealth of Virginia, who understand the cost-sharing requirements for the feasibility phase of the study. The feasibility cost-sharing agreement is scheduled to be executed in April 2011.

Fiscal Year 2010 funds are being used to initiate the feasibility phase of the study, including negotiating and executing of the feasibility cost sharing agreement with the non-Federal sponsor, data gathering for cultural and environmental analyses, and initiation of the public involvement programs.

Fiscal Year 2011 funds will be used to continue the feasibility phase, including preparation of the economic and environmental analyses, and the public involvement program. The estimated cost of the feasibility phase is $2,400,000, which is to be cost shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$2,498,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase is scheduled for completion in April 2011. The feasibility study is scheduled for completion in September 2014

Construction

APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Assateague Island, Maryland (Continuing)

LOCATION: The Town of Ocean City and adjacent areas of Worcester County comprise an area of 625 square miles including Assateague Island, Ocean City Inlet, and Chincoteague, Sinepuxent, Assawoman, and Isle of Wight Bays on the eastern shore of Maryland. Adjacent to Ocean City is the Assateague Island National Seashore and Assateague Island State Park.

DESCRIPTION: The project involves the short-term and long-term restoration of Assateague Island. Short-term work includes dredging of about 1.8 million cubic yards from Great Gull Bank and placing it on the Island in the area between 1.6 miles and 7.2 miles south of the jetty. Long-term work includes mobile bypassing of 185,000 cubic yards of sand annually. The project area is composed of 4.7 miles of National Park Service and 0.9 miles of State of Maryland land. The project is mitigating for the portion of sand losses that are 100 percent attributable to the Ocean City Inlet project constructed in 1934.

AUTHORIZATION: Section 534 of Water Resources Development Act of 1996

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		ACCUM. PCT. OF EST. FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)	38,450,000				
Estimated Appropriation Requirement (NPS)	25,250,000		Initial construction	100	Dec 2002
Estimated Total Appropriation Requirement	63,700,000		Renourishment	16	TBD
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	63,700,000				

Division: North Atlantic District: Baltimore Assateague Island, MD

SUMMARIZED FINANCIAL DATA:(CONT'D)

Allocations to 30 September 2007	14,543,560	
Allocation for FY 2008	1,722,000	
Allocation for FY 2009	478,000	
Recovery Act Allocations through 31 Dec 2009	0	
Conference Allowance for FY 2010	500,000	
Allocation for FY 2010	500,000	
Allocations through FY 2010	17,243,560	45
Allocation Requested for FY 2011	1,000,000	47
Programmed Balance to Complete after FY 2011	20,206,440	
Unprogrammed balance to Complete after FY 2011	0	

PHYSICAL DATA

Environmental Restoration
Assateague Island – 5.6 miles x 95 foot width

JUSTIFICATION: Construction of the jetties by the Corps of Engineers in 1934 to stabilize the Ocean City Inlet interrupted the natural longshore transport of sand from Ocean City to Assateague, starving the northern end of Assateague Island. The northern 1.5-7 miles of Assateague has eroded at an accelerated rate since then. It is estimated that the induced erosion rate for this section of the island was 10.8 feet per year. The island is at severe risk of breaching which would change the dynamics of the area resulting in adverse physical, biological, and economic impacts in the area and threaten the habitat of several endangered species such as the piping plover. The long term phase of the project is mitigating for the portion of the sand losses that are attributable to the inlet, not those due to natural erosion.

FISCAL YEAR 2010: Funds will be used to continue dredging/restoration.

FISCAL YEAR 2011: The requested amount of $1,000,000 will be used to continue dredging/restoration.

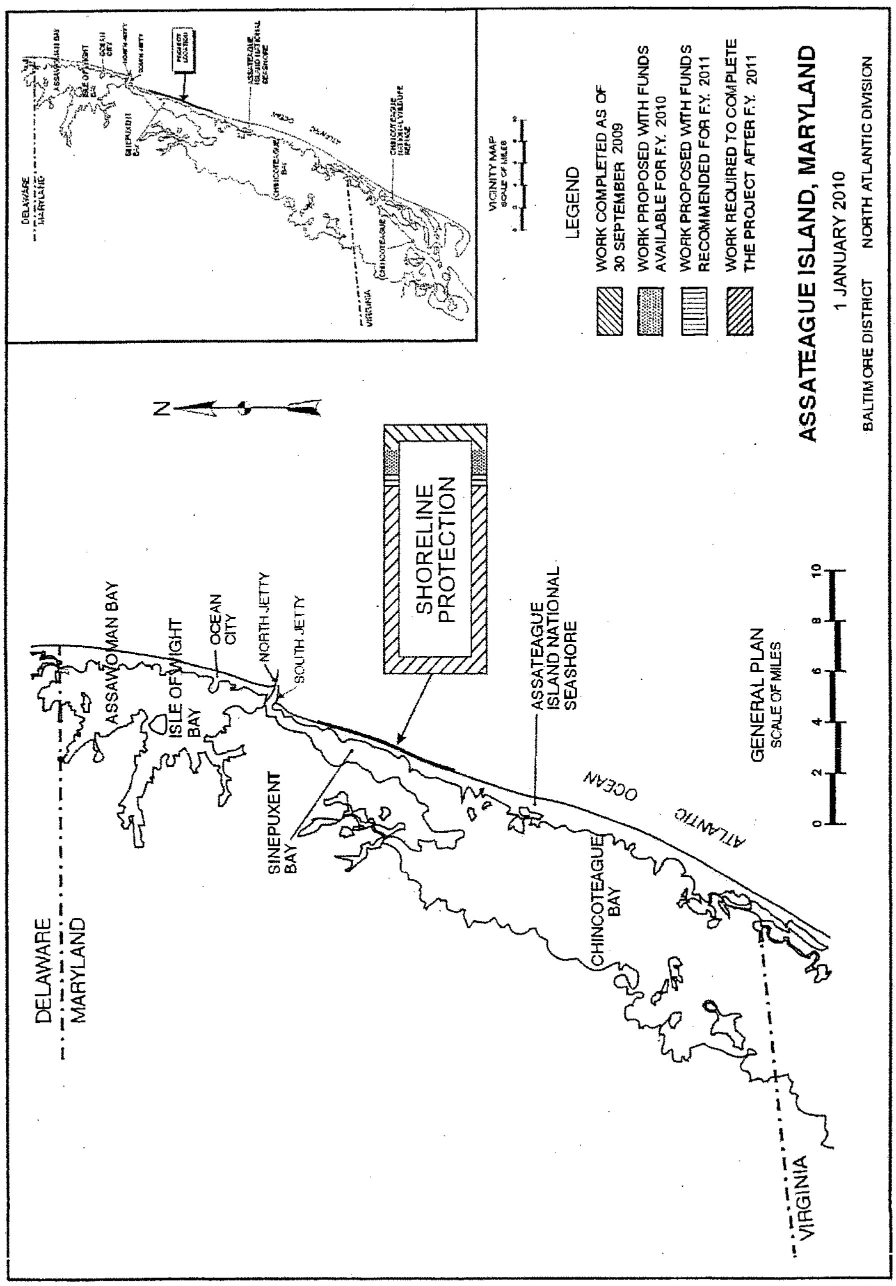
NON-FEDERAL COSTS: None.

STATUS OF LOCAL COOPERATION: The sponsor for the project is the National Park Service who administers the Assateague Island National Seashore. The National Park Service has provided lands, easements and rights-of-way for the initial construction work and has agreed to cost share 50% of the long-term work. An agreement between the Park Service and the Corps was executed in September 2001.

COMPARISON OF FEDERAL COST ESTIMATES: The current USACE Federal cost estimate of $38,450,000 is the same as the last estimate ($38,450,000) presented to Congress (FY 2004).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A draft Environmental Impact Statement was incorporated in the draft Integrated Interim Report dated May 1997. The final Environmental Impact Statement was incorporated in the final feasibility report completed in June 1998

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1997. Funds to initiate construction were appropriated in FY 2001. The current appropriation limit of $35 million will not allow for completion of the long term work.


DELAWARE
MARYLAND
ASSAWOMAN BAY
ISLE OF WIGHT BAY
OCEAN CITY
NORTH JETTY
SOUTH JETTY
SHORELINE PROTECTION
SINEPUXENT BAY
ASSATEAGUE ISLAND NATIONAL SEASHORE
ATLANTIC OCEAN
CHINCOTEAGUE BAY
VIRGINIA
N
GENERAL PLAN
SCALE OF MILES
0
2
4
6
8
10
VICINITY MAP
LEGEND
▨ WORK COMPLETED AS OF 30 SEPTEMBER 2009
▨ WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2010
▥ WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2011
▨ WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2011
ASSATEAGUE ISLAND, MARYLAND
1 JANUARY 2010
BALTIMORE DISTRICT
NORTH ATLANTIC DIVISION

1 February 2010

NAD - 88

APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Chesapeake Bay Oyster Recovery, Maryland & Virginia (Continuing)

LOCATION: The Chesapeake Bay in Maryland & Virginia

DESCRIPTION: The project will contribute to multi-agency and private efforts to restore oyster populations in the Chesapeake Bay. Project elements include: construction or rehabilitation of oyster reefs to create sanctuary and harvestable oyster habitats; construction of hatchery and seed bar facilities for production and collection of disease-free oyster seed or "spat"; planting spat and brood-stock oysters in locations which best foster oyster reproduction and health; and monitoring the performance of the project to increase oyster populations.

AUTHORIZATION: Section 704(b) of Water Resources Development Act (WRDA) of 1986, as amended by Section 505 of WRDA '96, Section 342 of WRDA '00, Section 113 of the Energy and Water Development Appropriation Act, 2002, Section 126 of the Energy and Water Development Appropriations Act, 2006, and Section 5021 WRDA 2007.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA			ACCUM PCT. OF EST. FED COST
Estimated Federal Cost		50,000,000	
Estimated Non-Federal Cost:		16,666,000	
Cash Contributions	0		
Other Costs	16,666,000		
Total Estimated Project Cost		66,666,000	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	44	TBD

SUMMARIZED FINANCIAL DATA: (CONT'D)

Allocations to 30 September 2007	19,213,200	
Allocation for FY 2008	2,028,000	
Allocation for FY 2009	2,400,000	
Recovery Act Allocations through 31 Dec 2009	0	
Conference Allowance for FY 2010	2,000,000	
Allocation for FY 2010	2,000,000	
Allocations through FY 2010	25,641,200	51
Allocation Requested for FY 2011	5,000,000	61
Programmed Balance to Complete after FY 2011	19,358,800	
Unprogrammed Balance to Complete after FY 2011	0	

PHYSICAL DATA

New oyster bars construction	2000 acres
Existing oyster bars rehabilitation	135 acres
Seed bars creation	100 acres
Oyster seed production	

Hatchery Spat transplanted - 500 million
Natural Spat transplanted - 100,000 bushels

JUSTIFICATION: The Chesapeake Bay oyster population has declined dramatically since the turn of the century, largely due to the parasitic diseases, MSX, Dermo, and overharvesting. These diseases kill oysters before they reach maturity and marketable size. As a result, there has been a collapse in the oyster industry, with the 1995 harvest equating to less than one percent of the harvest 100 years ago. More significantly, the reduced oyster population has adversely impacted water quality in the Bay, due to the smaller size and numbers of oyster beds to filter and clean the water. Activities to restore physical oyster habitat and maintain water quality are critical to the economic and environmental survival of the Chesapeake Bay. Restoration of oyster populations in the bay is a high priority of the State of Maryland, the Commonwealth of Virginia, and the Chesapeake Bay Program. With the May 2009 executive order 13508, there is a renewed interest in Chesapeake Bay restoration on the national level; oysters are considered a keystone species for Bay restoration. As part of this project, the Corps will develop a long-term master plan to document the Corps' role in implementation of oyster restoration activities.

FISCAL YEAR 2010: The allocated amount will be applied as follows:

Fish and Wildlife Facilities:	Maryland	1,100,000
	Virginia	0
Planning, Engineering, and Design:	Maryland	350,000
	Virginia	450,000
Construction Management:	Maryland	100,000
	Virginia	0
Total		2,000,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Fish and Wildlife Facilities:	Maryland	1,750,000
	Virginia	1,900,000
Planning, Engineering, and Design:	Maryland	370,000
	Virginia	560,000
Construction Management:	Maryland	180,000
	Virginia	240,000
Total		5,000,000

Division: North Atlantic District: Baltimore Chesapeake Bay Oyster Recovery, MD and VA

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Pay 25 percent of the cost allocated to fish and wildlife restoration (by work-in-kind credits) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	$16,666,000	$0
Total Non-Federal Costs	$16,666,000	

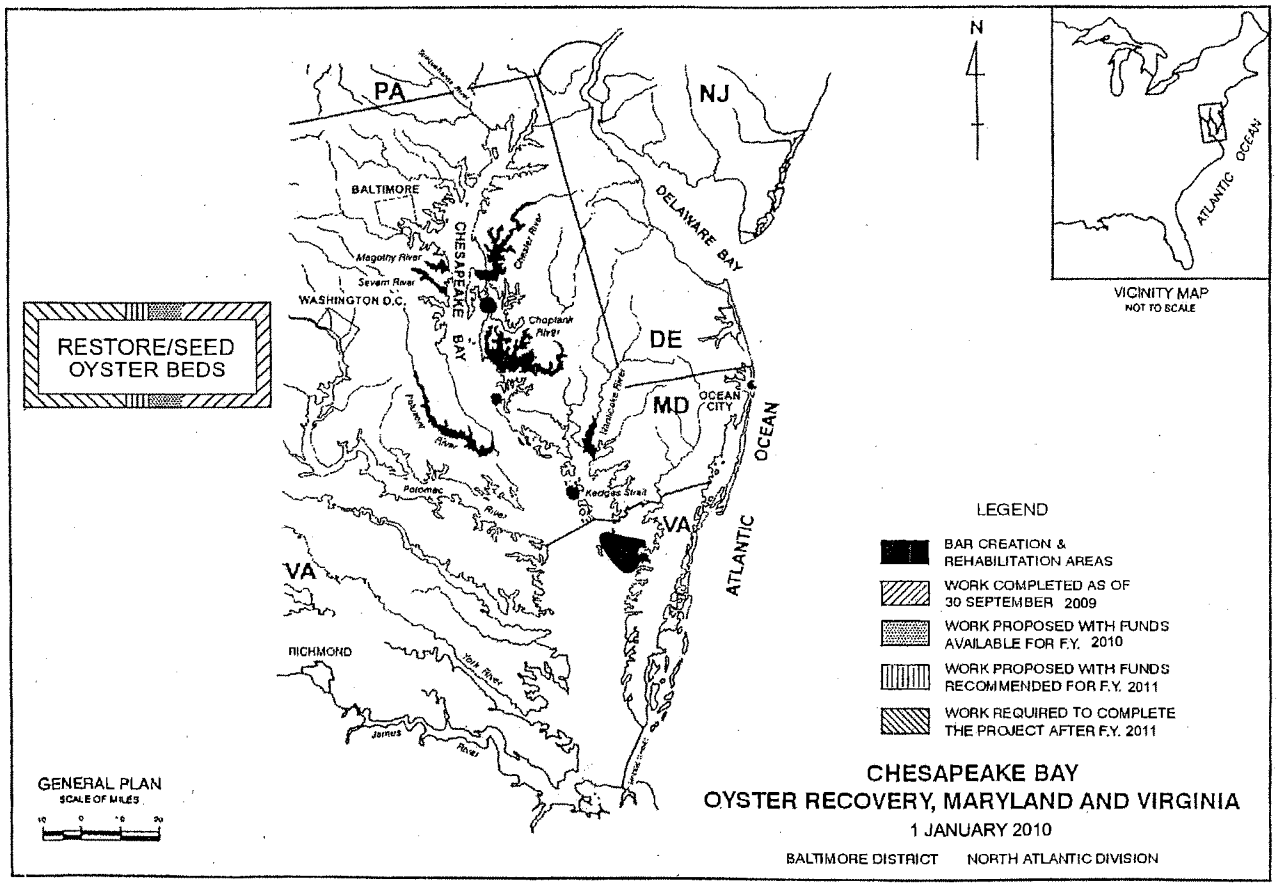
STATUS OF LOCAL COOPERATION: The State of Maryland and the Commonwealth of Virginia are the non-Federal project sponsors. The project cooperation agreement between the Corps of Engineers and the State of Maryland was executed in February 1997. An amendment to this agreement was executed in July 2002. The project cooperation agreement between the Corps and the Commonwealth of Virginia was executed in September 2001. To date, the States have fully complied with the requirements of local cooperation.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $50,000,000 is an increase of $30,000,000 from the latest estimate ($20,000,000) presented to Congress (FY 2005). This change includes the following item:

Item	
Authorized Modifications	$30,000,000
Total	$30,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An environmental assessment and finding of no significant impact was completed in January 1996 for the Maryland activities. Supplemental environmental efforts for the Maryland activities were completed in July 1999, June 2002, and June 2009. Separate environmental assessments and findings of no significant impacts were prepared in 2001, 2003 and 2005 for Virginia activities in the Tangier Sound, Great Wicomico River and the Lynnhaven River.

OTHER INFORMATION: Funds to initiate construction were appropriated in FY 1995. Section 5021 of WRDA 2007 increased the authorized limit for this project to $50 million.



LEGEND

- ■ BAR CREATION & REHABILITATION AREAS
- ▨ WORK COMPLETED AS OF 30 SEPTEMBER 2009
- ▒ WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2010
- ▥ WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2011
- ▧ WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2011

CHESAPEAKE BAY
OYSTER RECOVERY, MARYLAND AND VIRGINIA
1 JANUARY 2010
BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Lower Cape May Meadows, Cape May Point, NJ (Continuing)

LOCATION: The Project area, along the southern Atlantic coast of New Jersey, includes Lower Cape May Meadows and the Borough of Cape May Point and extends approximately 2 miles. The project area is entirely in Cape May County.

DESCRIPTION: The project area is approximately 350 acres containing Cape May Point State Park and the Nature Conservancy's Cape May Migratory Bird Refuge. The Meadows consists of important coastal freshwater wetlands, which are vital resting areas for shorebirds and birds of prey during their seasonal migration along the Atlantic flyway. The project restores and protects fish and wildlife habitat and provides flood and storm damage reduction throughout the entire study area. The plan consists of a dune/berm 20 feet wide extending for a total length of 10,050 feet; planting of 18 acres of dune vegetation; seaward restoration of 35 acres of emergent wetland; elimination of 95 acres of the nuisance plant Phragmites australis; planting of 105 acres of wetland vegetation; creation of drainage ditches; installation of two weir-flow control structures; creation of six fish reservoirs; and construction of elements to create 25 acres of tidal marsh. The project also includes 650,000 cubic yards of periodic nourishment every 4 years over the 50-year project life, and monitoring and adaptive management over a 5-year period for the Lower Cape May Meadows freshwater wetlands restoration element.

AUTHORIZATION: Section 101 (a) (25) of WRDA 1999.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Benefits and costs (October 1998 price level) are based on the Chief of Engineers Report dated 05 April 1999.

SUMMARIZED FINANCIAL DATA:

Estimated Federal Cost			$108,429,450
Initial Construction		$13,038,000	
Periodic Nourishment assoc w/Navigation		$95,391,450	
Estimated Non-Federal Cost			$ 14,907,800
Initial Cost		$ 6,575,000	
Cash Contribution	$6,419,000		
Other	$ 156,000		
Periodic Nourishment Other		$ 8,332,800	
Cash	$8,332,800		
Total Estimated Project Cost			$123,337,250 1/

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Initial Beachfill	100	Dec 2005
Fish & Wildlife	100	Sept 2006
Entire Project	16	TBD

PHYSICAL DATA:
Dune/berm: 20 feet wide, total length 10,050 ft
Plantings: 158 acres of dune, emergent wetland, and wetland
Creation of weir-flow control structures and fish reservoirs
New tidal marsh: 25 acres
Monitoring and adaptive management: 5 years
Periodic Nourishment: 4 year cycle for 50 years with monitoring

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	$13,037,927	
Allocation for FY 2008	$ 4,785,000	
Allocation for FY 2009	$ 144,000	
Conference Allowance for FY 2010	$ 378,000	
Recovery Act Allocations through 31 Dec 2009	$ 0	
Allocation for FY 2010	$ 378,000	
Allocations through FY 2010	$18,344,927	17
Allocation Requested for FY 2011	$ 8,920,000	25
Programmed Balance to Complete after FY 2011	$81,164,523 1/	
Unprogrammed Balance to Complete after FY 2011	$ 0	

1/ 63 percent of project costs are allocable to the restoration of sand losses from operation and maintenance of Cape May Inlet. As authorized, the project provides that this portion be cost shared 90 percent Federal and 10 percent non-Federal, and that the remaining 37 percent of costs, which are allocable to storm damage reduction, be cost shared 65 percent Federal and 35 percent non-Federal. However, the budget proposes that 100 percent of the costs of renourishment allocable to the correction of navigation impacts (in this case, 63 percent of all costs) be paid with Civil Works funds.

JUSTIFICATION: Lower Cape May Meadows has been severely impacted by shoreline erosion linked to the Federal navigation project at Cape May Inlet completed in 1911. Erosion has resulted in the direct loss of beach and unique freshwater wetland habitat. Erosion to the dune system has left the remaining freshwater ecosystem in the Meadows substantially degraded through saltwater intrusion and subsequent topographical alteration by allowing ocean water overtopping during storm events. Since 1991, the dunes protecting the wetlands have been breached six times, resulting in saltwater intrusion to the freshwater wetlands. Very few plant or animal species have the adaptations needed to survive such large fluctuations or range of salinities (freshwater to saltwater). The saltwater intrusion has also encouraged the subsequent proliferation of the nuisance plant species Phragmites australis, also know as common reed. These conditions have significantly reduced the ability of the wetlands to support the wildlife and endangered plant species which reside there. It is estimated that an additional 147 acres of habitat will be lost by the year 2050 if shoreline erosion is to continue unabated.

Compounding the problem is the hydraulic/hydrologic relationship between Lower Cape May Meadows and the communities of Cape May Point and West Cape May. Lower Cape May Meadows serves as a buffer during storms between the ocean and the surrounding developed areas. When the Meadows area is inundated during storm events, the floodwaters flow into Cape May Point and the developed portions of Lower Township and West Cape May, flooding the low lying areas of these towns.

FISCAL YEAR 2010: Funds will be used for project monitoring.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Project Monitoring	$ 400,000
Complete 2nd Periodic Nourishment Cycle	$7,870,000
Planning, Engineering, and Design	$ 250,000
Construction Management	$ 400,000
Total:	$8,920,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments during Construction and Reimbursement	Annual Operation, Maintenance, and Replacement Costs
Provide all lands, easements, rights-of-way, and relocations.	$ 156,000	
Provide initial construction costs assigned to non-mitigation portion of the project for hurricane and storm damage reduction and ecosystem restoration	$ 3,249,000	
Provide initial construction costs assigned to mitigation portion of the project. $	3,170,000	
Provide 35 percent of the costs of periodic renourishment allocable to storm damage reduction. $	8,332,800	
Total Non-Federal Cost	$14,907,800	

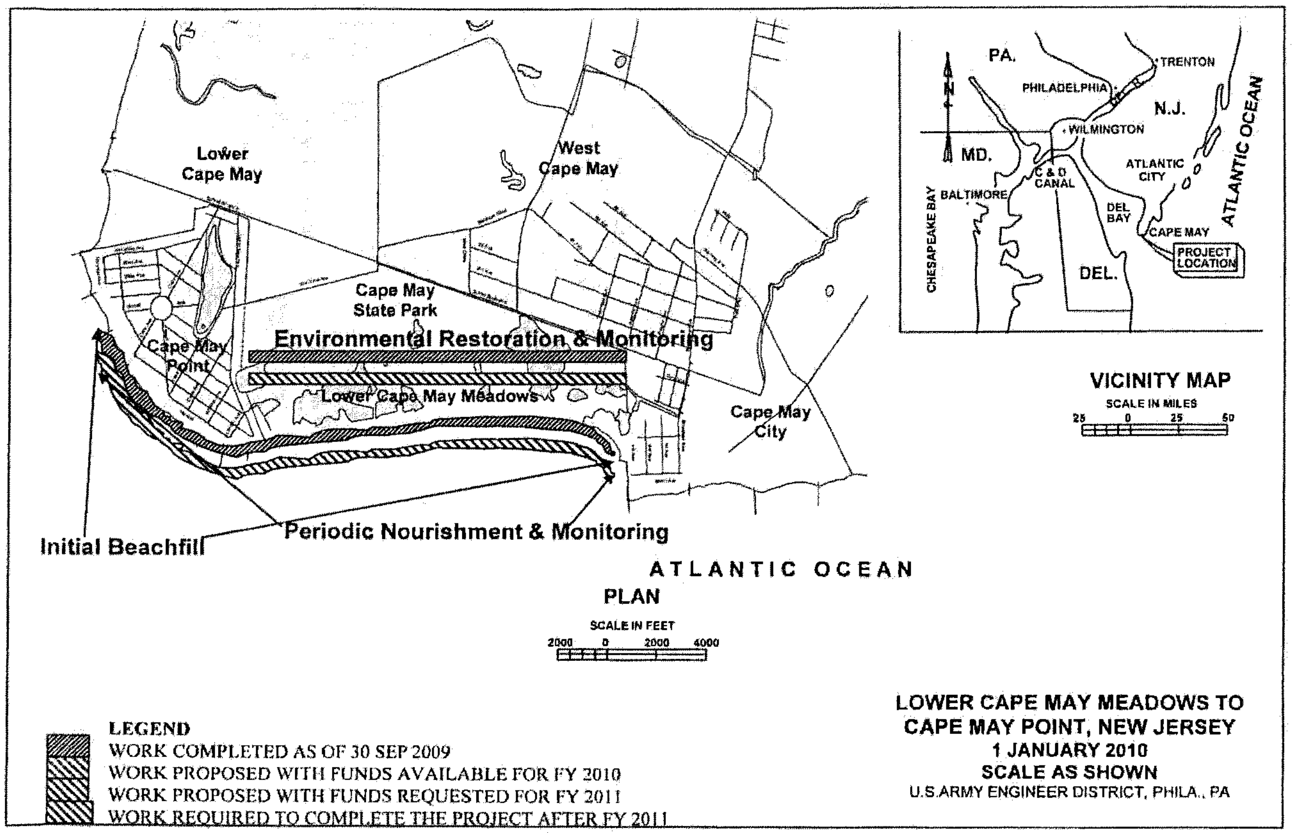
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was signed with NJ Department of Environmental Protection on 28 July 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $108,429,450 is an increase of $4,809,450 from the latest estimate ($103,620,000) presented to Congress (FY 2006). This change includes the following item:

Price escalation on Construction Features $4,809,450

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Assessment was completed in November 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1999. Funds to initiate construction were appropriated in FY 2002.



LEGEND

▨ WORK COMPLETED AS OF 30 SEP 2009
▨ WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
▨ WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
▨ WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

LOWER CAPE MAY MEADOWS TO
CAPE MAY POINT, NEW JERSEY
1 JANUARY 2010
SCALE AS SHOWN
U.S.ARMY ENGINEER DISTRICT, PHILA., PA

APPROPRIATION TITLE: Construction, General – Aquatic Ecosystem Restoration

PROJECT: Poplar Island, Maryland (Continuing)

LOCATION: Poplar Island is a group of islands located in the upper middle Chesapeake Bay approximately 34 nautical miles southeast of the Port of Baltimore.

DESCRIPTION: The project consists of reconstructing Poplar Island to its approximate size in 1847 (1,140 acres), using an estimated 40 million cubic yards of uncontaminated dredged material from maintenance dredging of the southern approach channels of the Baltimore Harbor and Channel navigation project. This will be accomplished through the construction of approximately 35,000 feet of armored dikes to contain the dredged material necessary to form the low and high marsh wetlands and upland habitat and to protect the 1,140-acre dredged material placement area from the severe wave activity in this region of the Chesapeake Bay. . Section 3087 of WRDA 2007 authorized a $260 million, 575-acre expansion of Poplar Island. The expansion would be approximately 29 percent wetlands, 47 percent uplands and 24 percent open water. The expansion would include a 5-foot raising of the existing uplands dikes on Poplar Island and would increase the overall capacity by 28 million cubic yards.

AUTHORIZATION: Section 537 of P.L. 104-303 (WRDA 1996), as amended by: Section 318 of P.L. 106-541 (WRDA 2000); and, Section 3087 of P.L. 110-114 (WRDA 2007).

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		474,250,000
Estimated Non-Federal Cost:		192,750,000
Cash Contributions	42,500,000	
Other Costs	150,250,000	
Total Estimated Project Cost		667,000,000

ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
	Entire Project	38	TBD

Division: North Atlantic District: Baltimore Poplar Island, Maryland

SUMMARIZED FINANCIAL DATA :(CONT'D)

Allocations to 30 September 2007	162,873,100	
Allocation for FY 2008	13,387,000	
Allocation for FY 2009	9,412,000	
Recovery Act Allocations through 31 Dec 2010	910,000	
Conference Allowance for FY 2010	8,078,000	
Allocations for FY 2010	8,078,000	
Allocations through FY 2010	194,660,100	41
Allocation Requested for FY 2011	1,530,000	41
Programmed Balance to Complete after FY 2011	278,059,900	
Unprogrammed balance to Complete after FY 2011	0	

PHYSICAL DATA

Earth and rock dikes	35,000 feet
Wetlands created	736 acres
Uplands created	851 acres

JUSTIFICATION: Valuable island habitat at Poplar Island is being lost through erosion. Islands are preferentially selected by many fish and wildlife species as nesting/production areas. The lack of human disturbance and fewer predators make islands more productive. Poplar Island is currently eroding at more than 13 feet per year and would have disappeared by now without the project. The plan to restore the island using uncontaminated dredged material from maintenance dredging of the Baltimore Harbor and Channels navigation project was developed through the cooperative efforts of many state and Federal agencies, as well as private organizations. The Port of Baltimore is rapidly reaching a point where available placement area capacity will be insufficient to meet the port's dredging needs. A disruption in the constant maintenance that is required to keep the Port of Baltimore operational would result in significant adverse effects to both the local and national economy.

FISCAL YEAR 2010: The allocated amount will be applied as follows:

Engineering and design of wetland cells 1B, 1C, and 3A; stone monitoring, annual surveys and monitoring, management, and oversight.	$ 3,328,000
Cell 1C planting contract.	700,000
Cell 1B tidal inlet structure.	650,000
Cell 1B planting contract.	700,000
Cell 3A tidal inlet	850,000
Initiate design of the Poplar Island expansion	1,850,000
Total	$ 8,078,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Annual surveys, and monitoring, management, and oversight.	$ 1,530,000
Total	$ 1,530,000

Division: North Atlantic District: Baltimore Poplar Island, Maryland

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance and Replacement Costs
Provide lands, easements, and rights-of-way	$ 37,000	
Pay 25 percent of the original and 35 percent of the expansion cost allocated to fish & wildlife restoration (including $150,213,000 in credits for in-kind services and materials) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of fish and wildlife facilities.	192,713,000	440,000
Total Non-Federal Costs	$192,750,000	440,000

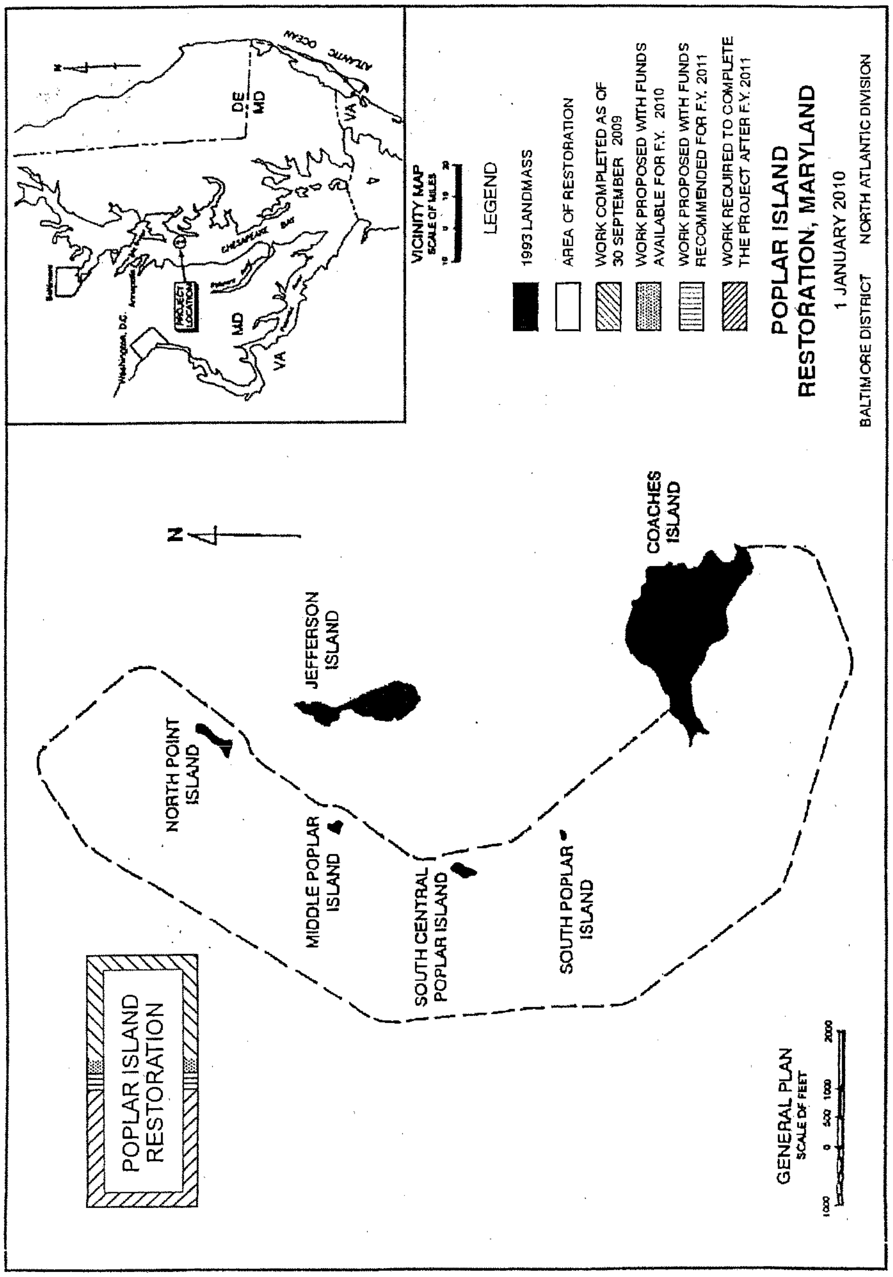
STATUS OF LOCAL COOPERATION: The State of Maryland is the non-Federal sponsor. By letter dated 16 May 1996, the State of Maryland stated its intent to be the non-Federal sponsor and participate in project cost sharing in accordance with the Water Resources Development Act of 1986. The Project Cooperation Agreement was executed in April 1997, amended 9 April 2002 to reflect in-kind services authorized by the Water Resources Development Act of 2000, and being amended December 2009 to reflect expansion authorized by WRDA 2007. To date, the State has fully complied with the local requirements on the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $474,250,000 is an increase of $220,250,000 from the last estimate ($254,000,000) presented to Congress (FY 2006). This change includes the following item:

Item	
Authorized Modifications	$169,000,000
Price Escalation on Construction Features	$ 51,250,000
Total	$220,250,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The EIS was distributed for review and was finalized in February 1996 under the authority of Section 204 of the Water Resources Development Act of 1992.

OTHER INFORMATION: Planning for this project was accomplished under the authority of Section 204 of the Water Resources Development Act (WRDA) of 1992. The feasibility study was initiated in September 1994, completed in February 1996, and approved by the Assistant Secretary of the Army for Civil Works in September 1996. Section 537 of WRDA 1996 authorized construction and initial construction funds were appropriated in FY 1997. Section 3087 of WRDA 2007 authorized expansion construction at an additional cost of $260,000,000.


POPLAR ISLAND RESTORATION
GENERAL PLAN
SCALE OF FEET
1000 0 500 1000 2000
N
NORTH POINT ISLAND
JEFFERSON ISLAND
MIDDLE POPLAR ISLAND
SOUTH CENTRAL POPLAR ISLAND
SOUTH POPLAR ISLAND
COACHES ISLAND
VICINITY MAP
SCALE OF MILES
10 0 10 20
Baltimore
Washington, D.C.
Annapolis
PROJECT LOCATION
CHESAPEAKE BAY
MD
VA
DE
ATLANTIC OCEAN
LEGEND
1993 LANDMASS
AREA OF RESTORATION
WORK COMPLETED AS OF 30 SEPTEMBER 2009
WORK PROPOSED WITH FUNDS AVAILABLE FOR F.Y. 2010
WORK PROPOSED WITH FUNDS RECOMMENDED FOR F.Y. 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER F.Y. 2011
POPLAR ISLAND RESTORATION, MARYLAND
1 JANUARY 2010
BALTIMORE DISTRICT NORTH ATLANTIC DIVISION

1 February 2010

NAD - 100

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Almond Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Almond Lake is located near Hornell, New York on Canacadea Creek, a tributary of the Canisteo River, which flows into the Chemung River, which flows into the Susquehanna River. The dam is an earthfill structure, 1,260 feet long rising 90 feet above the streambed, with a gated outlet conduit in the left abutment, and a concrete spillway in a natural saddle beyond the left abutment. The reservoir has a storage capacity of 14,800 acre-feet at spillway crest and has an area of 490 acres when filled to that level. The project controls a drainage area of 56 square miles or 36 percent of the watershed of the Canisteo River upstream from Hornell. An additional portion of the watershed is controlled by Arkport Dam. The project forms part of the protection for Hornell, Canisteo, and Addison and reduces flood heights at other localities on the Canisteo and Chemung rivers. Steuben County operates and maintains the Kanakadea Recreation Area at Almond Lake.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $498,000
BUDGET FOR FY2011: M: $144,000 O: $346,000 T: $490,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $471,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $15,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0- NA

ES: $4,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Eric J. Massa (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

Division: North Atlantic District: Baltimore Project Name: Almond Lake, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alvin R. Bush Dam, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, First session.

LOCATION AND DESCRIPTION: System Code 0205- Alvin R. Bush Dam is located on Kettle Creek approximately 8.4 miles above the mouth and about 15 miles above Renovo, Pennsylvania, in Clinton County. The earth and rockfill dam has a maximum height of 165 feet above the streambed and a top length of 1,350 feet. The outlet works include a horseshoe-shaped tunnel, 13 feet in diameter, with 3 service gates. The spillway is uncontrolled and located in rock adjacent to the right abutment. The reservoir has a storage capacity of 75,000 acre-feet at spillway crest, and the pool at this elevation extends upstream for a distance approximately 8.8 miles. The permanent pool covers 160 acres and extends for 2.2 miles. The project controls a drainage area of 226 square miles or about 92 percent of the Kettle Creek watershed. The recreation facilities are operated and maintained by the Commonwealth of Pennsylvania Department of Conservation and Natural Resources as Kettle Creek State Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $626,000
BUDGET FOR FY2011: **M**: $153,000 **O**: $447,000 T: $600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $554,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $18,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $28,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5)
Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

Division: North Atlantic District: Baltimore Project Name: Alvin R. Bush Dam, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Arkport Dam, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Arkport Dam is located near Hornell, New York on the Canisteo River, a tributary of the Chemung River, which flows into the Susquehanna River. The dam is an earthfill structure, 1,200 feet long, rising 113 feet above the streambed, with a concrete spillway and an ungated outlet in the right abutment. This project is normally a dry dam; however, water is impounded after heavy rains. The project forms part of the protection for Hornell, Canisteo, and Addison, and reduces flood heights at other localities on the Canisteo and Chemung Rivers.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $283,000
BUDGET FOR FY2011: M: $73,000 **O:** $150,000 **T:** $223,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $217,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $0 - NA

Hydro: $0 - NA

ES: $6,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Eric J. Massa (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – ACC Route, VA

AUTHORIZATION: River and Harbor Act of 3 March 1899 and modified by Acts of 25 July 1912, 3 March 1925, 3 July 1930, 26 June 1934 and 2 March 1945.

LOCATION AND DESCRIPTION: The Albemarle and Chesapeake Canal (ACC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic Ocean between the Southern Branch of the Elizabeth River and the Virginia-North Carolina state line in the North Landing River, a distance of 27 miles. This project provides for a channel 12 feet deep with widths of 90 feet in land cuts and from 125 to 250 feet in rivers. Operation and maintenance of a tidal guard lock and a highway bridge is done by a facility maintenance contract. Since 1983, contractors under the Completive Sourcing Program have performed the Operation and Maintenance of this project.

RECOVERY ACT ALLOCATIONS TO DATE: $2,935,000
CONFERENCE FOR FY 2010: $2,490,000
BUDGET FOR FY 2011: **M**: $0 **O**: $2,150,000 **T**: $2,150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,150,000 will provide for routine operation of a bridge, lock, canal, and reservation for commercial traffic including military fuel barges delivering jet fuel for a Naval air station. Navigation will come to a complete stop if the operation of the bridge, lock, and canal is not funded.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The ACC Route is of critical importance to transportation, especially to the U.S. Navy which transports over 55,000,000 gallons of jet fuel yearly from the Craney Island Fuel Depot in Portsmouth, Virginia to the Oceana Naval Air Station in Virginia Beach, Virginia. Failure to fund the project will result in the Navy being unable to meet the fuel demand of the Oceana Naval Air Station. The Navy has stated that trucking this much fuel would not be feasible on a long-term basis. In addition, commercial and recreation vessels travel the waterway in lieu of the Atlantic Ocean to preclude risking the dangerous waters off Cape Hatteras. An average of over 1,000,000 tons of commerce passes though the Great Bridge Lock yearly.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway – Dismal Swamp Canal Route, VA

AUTHORIZATION: River and Harbor Act of 3 March 1899 and modified by Acts of 25 July 1912, 3 March 1925, 3 July 1930, 26 June 1934 and 2 March 1945.

LOCATION AND DESCRIPTION: The Dismal Swamp Canal (DSC), on the Atlantic Intracoastal Waterway (AIWW), is a naturally protected navigation route that generally parallels the Atlantic coast between Norfolk, VA and the Pasquotank River in NC. The canal is the oldest operating artificial waterway in the United States. The DSC was placed on the National Register of Historical Places and registered as an ASCE Landmark in 1988 and in 2004 it was included in the National Park Service's Underground Railroad Network to Freedom Program. The authorized depth of the canal is 10 feet; however, the project is currently maintained at 6 to 7 feet depths. The project also consists of one highway drawbridge and navigation lock at Deep Creek, VA, one highway drawbridge and navigation lock at South Mills, NC and three water control structures. To minimize costs, the two navigation locks and two bascule bridges are operated only four times daily between 8:30 a.m. and 3:30 p.m.

RECOVERY ACT ALLOCATIONS TO DATE: $349,000
CONFERENCE FOR FY 2010: $1,311,000
BUDGET FOR FY 2011: **M**: $0 **O**: $895,000 T: $895,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $290,000 - Navigation funds on the Dismal Swamp Canal are used to operate the bridges and locks,. on minimum basis of 8 hours a day, 7 days a week. Navigation will come to a complete stop if the operation of the bridges, canal, and locks is not funded.

FRM: $605,000 – Flood Risk Management funds on the Dismal Swamp Canal are used to operate low water control structures on the canal and at Lake Drummond.

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The DSC provides navigation needs for vessels to travel the protected waterways of the AIWW in lieu of traveling through the Currituck Sound. The water control structures are manned in conjunction with the locks and bridges to control the water levels in Lake Drummond as required by Public Law 93-402.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Aylesworth Creek Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in Senate Document 141, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Aylesworth Creek Lake is located in Archbald Borough, PA on Aylesworth Creek, approximately one mile above its confluence with the Lackawanna River. The earth and rockfill dam has a maximum height above the streambed of 90 feet and a top length of 1,270 feet. An 80-foot-wide spillway, having a discharge capacity of 10,000 cubic feet per second, was cut in the south bank. The outlet conduit is uncontrolled and consists of a 490-foot-long, 36-inch-diameter vitrified clay pipe encased in reinforced concrete. An auxiliary dike was required on the north bank of Aylesworth Creek to prevent flow from the lake into the Mayfield Creek drainage basin during high lake elevations. The dike is 410 feet long and has a maximum height of 28 feet. The reservoir extends about 4,600 feet upstream and inundates 87 acres at spillway crest with an elevation of 1,150 feet above mean sea level. Lackawanna County operates and maintains Aylesworth Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $204,000
BUDGET FOR FY2011: **M**: $59,000 **O**: $171,000 **T**: $230,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $200,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $20,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $10,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Chris P. Carney (PA-10)
Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Ball Mountain Dam, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of WRDA 1986.

LOCATION AND DESCRIPTION: Ball Mountain Dam is located along the West River, 29 miles above its junction with the Connecticut River in Brattleboro, Vermont. Dam is located about two miles north of Jamaica, Vermont. Ball Mountain Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. Project consists of an earth-filled dam with rock slope protection, 915 feet long with a maximum height of 265 feet; an uncontrolled ogee weir spillway, 235 feet wide with a maximum discharge capacity of 150,000 cubic feet per second; and a 13.5-foot diameter outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 54,690 acre-feet, to control runoff from its net drainage area of 172 square miles. Construction of the dam and appurtenant structures was initiated in May 1957 and completed in November 1961. Construction of recreation facilities was initiated in June 1975 and completed in June 1977. Fish passage facility work began in June 1992 and was completed in February 1993.

RECOVERY ACT ALLOCATIONS TO DATE: $275,000
CONFERENCE FOR FY 2010: **T**: $815,000
BUDGET FOR FY 2011: **M**: $346,000 **O**: $550,000 **T**: $896,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $696,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $131.5 million in flood damages since placed in service in 1961.

Rec: $138,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 61,000 visitors each year.

Hydro: N/A

ES: $62,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of project lands. The project consists of 965 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Ball Mountain Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issues are seepage and stability. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe). Dam Safety Construction Appropriation funds are currently being used to study seepage and stability issues at the dam.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor and Channels, MD & VA

AUTHORIZATION: House Document 799, 64th Congress, 1st Session, August 8, 1917; River and Harbors Committee Document 11, 70th Congress, 1st Session, July 3, 1930; House Document 741, 79th Congress, 2nd Session, March 2, 1945; House Document 86, 85th Congress, 1st Session, July 3, 1958; House Document 181, 94th Congress, 1st Session, December 31, 1970: Water Resources Development Act of November 17, 1986.

LOCATION AND DESCRIPTION: System Code 0206- The Baltimore Harbor Federal navigation project channels are located in the Chesapeake Bay from Virginia to Maryland. The R&H Act of 1970 authorized a uniform main channel 50 feet deep, and generally 800 (in Maryland) or 1,000 (in Virginia) feet wide through the Chesapeake Bay from the Virginia Capes at the mouth of the Bay to Fort McHenry in the Port of Baltimore, a distance of 175 miles. Depths of 50, 49, and 40 feet are authorized in the 600-foot wide branch channels of Curtis Bay, Northwest Branch East Channel, and Northwest Branch West Channel, respectively. The R&H Act of 1958 authorized, in part, southern approach and connecting channels 35 feet deep and 600 feet wide leading from the Port of Baltimore to the Inland Waterway from Delaware River to Chesapeake Bay, Delaware and Maryland, Chesapeake and Delaware Canal project; Baltimore Harbor branch channels ranging from 22, 35 and 42 feet deep and 200 to 600 feet wide in Curtis Creek and Ferry Bar; and Baltimore Harbor anchorages 30 and 35 feet deep. Section 329 of WRDA 1999 directed the Secretary to straighten the Tolchester Channel S-Turn as part of project maintenance. Section 101(a)(22) of WRDA 1999 authorized a 50-foot deep turning basin; 35 and 42-foot deep anchorages; and 42 and 36 feet deep and 400 to 500-foot wide channels into Dundalk, Seagirt, and South Locust Point Marine Terminals.

RECOVERY ACT ALLOCATIONS TO DATE: $10,800,000
CONFERENCE AMOUNT FOR FY2010: $17,500,000
BUDGET FOR FY2011: **M**: $15,800,000 **O**: $1,415,000 **T**: $17,215,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $17,215,000 - Funding will provide maintenance dredging, condition surveys and DMMP of the project.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Frank Kratovil, Jr. (MD-1), Dutch Ruppersberger (MD-2), John P. Sarbanes (MD-3), Donna F. Edwards (MD-4), Steny H. Hoyer (MD-5), Elijah E. Cummings (MD-7), Robert J. Wittman (VA-1), Glenn C. Nye (VA-2), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD)

Division: North Atlantic District: Baltimore Project Name: Baltimore Harbor and Channels, MD & VA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Baltimore Harbor, MD (Drift Removal)

AUTHORIZATION: River and Harbor Act of 30 June 1948.

LOCATION AND DESCRIPTION: System Code 0206- The Baltimore Harbor Collection and Removal of Drift Project is located within Baltimore City, and Baltimore and Anne Arundel Counties, Maryland. The collection and removal effort is a year round effort and consists of performing routine patrols throughout the harbor and also responding to emergency calls from Coast Guard and Navy activities, state and local government activities, and commercial business concerns for the removal of drift material deemed hazardous to the safe navigation of both commercial and recreational marine vessels.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $342,000
BUDGET FOR FY2011: **M**: $375,000 **O**: $0 T: $375,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $375,000 - Funding will provide drift and debris collection and removal of the project.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Frank Kratovil, Jr. (MD-1), Dutch Ruppersberger (MD-2), John P. Sarbanes (MD-3), Steny H. Hoyer (MD-5), Elijah E. Cummings (MD-7), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barnegat Inlet, New Jersey

AUTHORIZATION: HD 73-19 as modified by HD 74-85, HD 79-358 and Supplemental Appropriations Act of 1985

LOCATION AND DESCRIPTION: The project is located on the Atlantic coast of New Jersey about 33 miles north of Atlantic City. The project consists of 2 jetties (north and south), a navigation channel 300-feet wide and 10-feet deep, a channel extending from the gorge in the inlet to Oyster Creek Channel to deep water in Barnegat Bay. Oyster Creek Channel is maintained at 8 feet deep and 200 feet wide. Project length is 4.5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $350,000

CONFERENCE FOR FY 2010: **T**: $330,660

BUDGET FOR FY 2011: **M**: $325,000 **O**: $0 **T**: $325,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to perform channel surveys and maintenance dredging.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for one of the most dangerous inlets on the east coast. The US Coast Guard designates this Inlet as a "Surf Station", requiring special qualifications for their rescuers due to the hazardous category of the inlet. The Coast Guard is located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct search and rescue operations. They conducted 1,141 assistance/rescue cases and saved numerous lives. The Fishing Fleet consists of 36 full time commercial vessels, 145 charter and recreational vessels and contributes $30 million of economic value to the nation (NMFS data).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Barre Falls Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Barre Falls Dam is located along the Ware River in the Town of Barre, Massachusetts, about 31.9 miles above the confluence of the Swift River. The dam is located about 13 miles northwest of Worcester, Massachusetts. Barre Falls Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 885 feet long with a maximum height of 69 feet; 3 earth-filled dikes with rock and gravel slopes, totaling 3,215 feet in length; an uncontrolled ogee weir spillway, 60 feet wide with a maximum discharge capacity of 16,300 cubic feet per second; and a 9.7-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 24,000 acre-feet to control runoff from its net drainage area of 55 square miles. Construction of the dam and appurtenant structures was initiated in May 1956 and completed in May 1958.

RECOVERY ACT ALLOCATIONS TO DATE: $690,000
CONFERENCE FOR FY 2010: T: $716,000
BUDGET FOR FY 2011: M: $144,000 **O**: $556,000 T: $700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $568,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $50 million in flood damages since placed in service in 1958.

Rec: $61,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 80,000 visitors each year.

Hydro: N/A

ES: $71,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 557 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Bass Harbor, Tremont, Maine

AUTHORIZATION: Section 107 of the River and Harbor Act of 1960, as amended.

LOCATION AND DESCRIPTION: Bass Harbor is located in the Town of Tremont on the southwestern shore of Mount Desert Island off the coast of central Hancock County, Maine. Bass Harbor is a large commercial fishing harbor that supports a fleet of more than 90 commercial fishing and lobstering craft, a state ferry terminal serving island communities, and a fleet of service vessels supporting near shore aquaculture operations (fish farms). The existing Federal navigation project was completed in 1964 and provides for a 10-foot and two 6-foot anchorage areas for the local and transient fishing and recreational fleet. Maintenance of the existing anchorage areas would be undertaken concurrent with improvement dredging. Improvements consist of dredging a new 8-foot anchorage and expanding the upper 6-foot anchorage by 5.6 acres to accommodate the needs of the larger commercial fishing fleet. Bass Harbor is the last port on Mount Desert Island to retain commercial fishing as its principal activity. The other island harbors, while maintaining commercial fleets, have become largely recreational focused harbors.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $60,000
BUDGET FOR FY 2011: **M**: $65,000 **O**: $0 **T**: $65,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $65,000 – Funds will be used to exercise contract options to complete maintenance dredging of the existing anchorage areas concurrent with improvement dredging. Maintenance dredging involves the removal of about 11,000 cubic yards of material that would be placed at the Eastern Passage disposal area.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: FY 2010 funds are being used to award a base bid contract with options in February 2010 to initiate maintenance dredging.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beals Harbor, Maine

AUTHORIZATION: Rivers and Harbors Act of 1948.

LOCATION AND DESCRIPTION: Beals Harbor is located at the southwestern end of Moosabec Reach about 30 miles northeast of Bar Harbor. Beals Harbor is used almost exclusively by about 35 commercial lobster boats. The Harbor is located on Beals Island, and supports a small Downeast Maine community of 188 families of which a significant portion depend on the harbor for a living. The project provides a 10-foot deep anchorage over an area of about 900 feet in width and varying in length from 700 feet to 1,100 feet. Beals Harbor was built in 1957 and has never been maintained. Maintenance work involves dredging about 100,000 cubic yards and transporting the material 4 miles to a proposed deep-water ocean disposal site east of Mark's Island, Maine.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: M: $0 **O**: $100,000 T: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $100,000 – Funds will be used to secure environmental approvals, complete an Environmental Assessment and prepare plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Beltzville Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 622, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Pohopoco Creek, 4.5 miles from the confluence with the Lehigh River and 4 miles east of Lehighton, Pennsylvania. The project consists of a flood control, earth-fill dam with a controlled reservoir capacity of 68,250 acre-feet as a spillway crest, with 1,390 acre-feet of inactive storage, 41,200 acre-feet for water supply, water quality control and recreation. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure. Recreation Facilities-Public-use areas include boat launching, picnicking, bathing beach and sanitary facilities provided by the Corps of Engineers and completed during FY 1972. Recreation available includes swimming, boating, fishing, hunting, and hiking. The Commonwealth of Pennsylvania manages, under leases, the recreation facilities constructed by the Corps and the remainder of the project lands. The Corps manages the overlook and visitor center and the lands immediately adjacent to the dam structure.

RECOVERY ACT ALLOCATIONS TO DATE: $588,000

CONFERENCE FOR FY 2010: **T**: $1,129,590

BUDGET FOR FY 2011: **M**: $50,000 **O**: $1,375,000 **T**: $1,425,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: $0 N/A

FRM: $1,385,000 will be used for normal operations of the dam, including project buildings, grounds and equipment, sewage treatment plant janitorial service, law enforcement and water quality certification.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $40,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of sustainable land, improving fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, and continuation of good stewardship practices.

WS: N/A.

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Birch Hill Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Birch Hill Dam is located along the Millers River, 27.3 miles above its junction with the Connecticut River. The dam lies about 1.3 miles east of South Royalston, Massachusetts and 7.5 miles northwest of Gardner, Massachusetts. Birch Hill Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,400 feet long with a maximum height of 56 feet; an uncontrolled ogee weir spillway, a total of 1,190 feet wide with a maximum discharge capacity of 56,600 cubic feet per second; and 4 rectangular outlet conduits with 8 control gates. The reservoir provides a flood storage capacity of 49,900 acre-feet, to control runoff from its net drainage area of 175 square miles. Construction of the dam and appurtenant structures was initiated in June 1940 and completed in February 1942.

RECOVERY ACT ALLOCATIONS TO DATE: $453,250
CONFERENCE FOR FY 2010: T: $1,143,000
BUDGET FOR FY 2011: M: $153,000 **O**: $639,000 T: $792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $634,000 – Funding provides for essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included are required inspections of 5 public use bridges located on project lands. Project has prevented an estimated $71.4 million in flood damages since placed in service in 1942.

Rec: $57,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 341,000 visitors each year.

Hydro: N/A

ES: $101,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 4,394 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Birch Hill Dam and the Winchenden Dike portion of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in September and November 2009 (respectively). The principle issues at the dam are seepage and seismic, the issue at the dike is seepage. The rating of III is defined as High Priority (Conditionally Unsafe).

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Rock Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Black Rock Lake is located on Branch Brook, about 2 miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Black Rock Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam, 933 feet long with a maximum height of 154 feet; an uncontrolled chute spillway, 140 feet wide with a maximum discharge capacity of 33,500 cubic feet per second; and a rectangular outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 8,755 acre-feet to control runoff from its net drainage area of 20.4 square miles. Construction of the dam and appurtenant structures was initiated in July 1967 and completed in July 1971.

RECOVERY ACT ALLOCATIONS TO DATE: $475,200
CONFERENCE FOR FY 2010: **T**: $1,365,000
BUDGET FOR FY 2011: **M**: $67,000 **O**: $470,000 **T**: $537,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $444,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated $108.6 million in flood damages since placed in service in 1971.

Rec: $51,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 115,000 visitors each year.

Hydro: N/A

ES: $42,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 173 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Black Rock Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blackwater Dam, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Blackwater Dam is located along the Blackwater River, about 8.2 miles upstream from its junction with the Contoocook River. The project is located in the Towns of Webster and Salisbury, New Hampshire. Blackwater Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,650 feet long with a maximum height of 28 feet; an uncontrolled ogee weir spillway, 240 feet wide with a maximum discharge capacity of 32,800 cubic feet per second; and 4 rectangular outlet conduits with 4 control gates, one of which is plugged. The reservoir provides a flood storage capacity of 46,000 acre-feet to control runoff from its net drainage area of 128 square miles. Construction of the dam and appurtenant structures was initiated in May 1940 and completed in November 1941.

RECOVERY ACT ALLOCATIONS TO DATE: $118,850
CONFERENCE FOR FY 2010: **T**: $580,000
BUDGET FOR FY 2011: **M**: $151,000 **O**: $565,000 **T**: $716,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $536,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $71.8 million in flood damages since placed in service in 1941.

Rec: $63,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 24,000 visitors each year.

Hydro: N/A

ES: $117,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 3,580 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Block Island Harbor of Refuge, Rhode Island

AUTHORIZATION: Rivers & Harbors Act of 1912.

LOCATION AND DESCRIPTION: Block Island is located about 13 miles off the south coast of Rhode Island. The Harbor of Refuge is the subsistence harbor for Block Island. The project provides for a 15-foot entrance channel, anchorage and basin area; along with two rubble-mound breakwaters, a "T" shaped stone jetty, masonry walls and bulkhead. The project was completed in 1916 and last maintained in June 2009, when the Government owned CURRITUCK dredged the entrance channel. The 260 foot long east bulkhead is located within the inner basin of the harbor, and was last repaired in 1970. The existing steel sheet-pile bulkhead is in disrepair, jeopardizing the stability of the adjacent bank. Proposed work includes stabilizing the bulkhead with a stone revetment fronting the structure.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $1,204,000
BUDGET FOR FY 2011: **M**: $1,250,000 **O**: $0 T: $1,250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,250,000 – Funds will be used to exercise contract options and complete construction of bulkhead repairs.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Ownership of the property adjacent to the east bulkhead is under dispute. Real estate ownership and construction access must be established before a contract can be awarded. The timber wharf in front of the east bulkhead will need to be partially replaced in order to conduct the bulkhead repair work. Maintenance dredging of the project was performed in June 2009. FY 2010 funds are being used to award a base bid contract with options in July 2010 to initiate bulkhead repairs.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Blue Marsh Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 522, 87th Congress, 2nd Session (1962)

LOCATION AND DESCRIPTION: The project is located on Tulpehocken Creek, a tributary of the Schuylkill River, about 1.5 miles upstream from its confluence with Plum Creek, and about 6 miles northwest of Reading, Pennsylvania. The project consists of a flood control earth and rock fill dam, with a spillway approximately 1,500 feet south of the dam. Project has capacity of 50,010 acre-feet at spillway crest with 3,000 acre-feet of inactive storage, 14,620 acre-feet for water supply and recreation and 32,390 acre feet for flood control. Flood Damage Reduction, Earth and rock fill dam, 1775 feet in length, rising 98 feet above the creek-bed, with a spillway approximately 1,500 feet south of the dam. Project has capacity of 50,010 acre-feet at spillway crest with 3,000 acre-feet of inactive storage, 14,620 acre-feet for water supply and recreation and 32,390 acre feet for flood control.

RECOVERY ACT ALLOCATIONS TO DATE: $693,950

CONFERENCE FOR FY 2010: **T**: $2,536,380

BUDGET FOR FY 2011: **M**: $316,000 **O**: $2,501,000 **T**: $2,817,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: $745,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots, picnic areas and an overlook area. Other specific work includes lead paint remediation, real estate (NAB), continuing evaluation gathering, dam safety, water-control and water-quality analysis.

REC: $1,747,000 will be used for operation and maintenance of public use activities including picnicking, boating (launching ramps), fishing, hunting, sightseeing, swimming (bathing beach with concession), hiking and various winter sports which are provided and operated by the Corps of Engineers The Corps leases approximately 3,000 acres to the Commonwealth of PA for game management while the Pennsylvania Fish & Boat Commission stocks the lake and, along with the Corps, enforces boating regulations.

HYDRO: $0 N/A.

ES: $325,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of 250 acres of sustainable land, improving 64 acres of fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, improvement of multiple wildlife plots and continuation of good stewardship practices.

WS: $0 N/A.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Boston Harbor, Massachusetts

AUTHORIZATION: Adopted in 1825 and supplemented by enactments in 1880, 1886, 1890, 1892, 1896, 1899, 1902, 1912, 1917, 1935, 1937, 1940, 1945, 1946, 1958, 1962, 1990, 1992 and 1996.

LOCATION AND DESCRIPTION: Boston Harbor is located along the eastern shoreline of Massachusetts and includes navigation improvements in Dorchester and Quincy Bays. The Port of Boston is the largest port in New England, serving the nation's eleventh largest metropolitan area and a regional population of about 15 million residents in the six states. The Port's terminals handled over 22 million tons of liquid and dry bulk, containerized, and general cargo in 2007. The main deep water harbor is comprised of the Main Ship, Reserved, Mystic River and Chelsea River Channels. Work adopted in 1990 involved deepening the Mystic River and Reserved Channels to 40 feet and the Chelsea River Channel to 38 feet, along with widening and deepening to 40 feet the Inner Confluence Area. This work was completed in December 2001. Maintenance dredging of the project was last performed between April and December 2008 and involved dredging portions of the 35 and 40-foot Main Ship Channel, the 35-foot Upper Reserved Channel, and a portion of the Chelsea River Channel. Capping of the CAD cells used for disposal of unsuitable material from this latest maintenance work is scheduled to be completed in February 2010. Post-dredge surveys have identified areas of rock outcroppings or hard areas within the channel prohibiting maintenance dredging to authorized depth. FY 2010 funds are being used to prepare plans and specifications and to award a contract for rock removal. In addition, the state is working on replacement of the restrictive Chelsea Street Bridge, which will increase the opening from 96 to 225 feet wide. Once the new bridge is completed, widening of the channel in this area will be performed to eliminate the restrictive channel width and potential hazard to navigation.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $6,652,000
BUDGET FOR FY 2011: **M**: $2,700,000 **O**: $0 **T**: $2,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $2,700,000 – Funds will be used to complete plans and specifications, and award a fully funded contract for channel widening in the vicinity of the new Chelsea Street Bridge.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brown's Creek, NY

AUTHORIZATION: House Document 22, 51st Cong, 1st Session, adopted in 1890

LOCATION AND DESCRIPTION: A channel 6 ft. deep, 100 ft. wide from 6 ft. contour in Great South Bay to a point 250 ft. upstream from inshore end of jetties and thence 4 ft. deep, 100 ft. wide to the head of navigation. Length – about 1.0 mile.

Two stone jetties at the entrance, the east jetty 448 ft. long and the west jetty 700 ft. long. (Note: East and west jetties originally authorized to be 1,400 and 1,600 ft., respectively. Incompleted portions of both jetties were deauthorized on August 5, 1977)

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $0
BUDGET FOR FY2011: **M**: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000 Funds will be used for caretaker status to monitor channel conditions, publish controlling depth reports and coordinate with USCG and navigation stakeholders.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buffumville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Buffumville Lake is located along the Little River, about 1.3 miles upstream from its confluence with the French River and about 8 miles northeast of Southbridge, Massachusetts. The project is located in the Towns of Oxford and Charlton, Massachusetts. Buffumville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 3,255 feet long with a maximum height of 66 feet; an earth-filled dike with stone slope protection, a total length of 610 feet and a maximum height of 15 feet; an uncontrolled ogee weir spillway, 220 feet wide with a maximum discharge capacity of 29,800 cubic feet per second; and 3 rectangular outlet conduits with 1 control gate. The reservoir provides a flood storage capacity of 12,720 acre-feet to control runoff from its net drainage area of 26.5 square miles. Construction of the dam and appurtenant structures was initiated in September 1956 and completed in June 1958.

RECOVERY ACT ALLOCATIONS TO DATE: $211,700
CONFERENCE FOR FY 2010: **T**: $794,000
BUDGET FOR FY 2011: **M**: $205,000 **O**: $452,000 **T**: $657,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $524,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $92.6 million in flood damages since placed in service in 1958.

Rec: $74,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 138,000 visitors each year.

Hydro: N/A

ES: $59,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is boundary monument recertification and resolution of real estate encroachment issues. The project consists of 480 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buttermilk Channel, NY

AUTHORIZATION: Rivers and Harbor Acts in 1902, modified in 1935 & 1962

LOCATION AND DESCRIPTION: The project is located in NY Harbor and provides for a channel 1000 feet wide; 500 feet wide and 40 feet deep along the easterly side and 500 feet wide and 35 feet deep along the westerly side with suitable widening at the junctions with the East River and Anchorage Channels; additional width of 2,100 feet to a depth of 35 feet at the junction with Anchorage and Red Hook Channels. The total length of the project is approximately 2.3 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $1,673,000
BUDGET FOR FY2011: **M**: $8,600,000 **O**: $0 **T**: $8,600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $8,600,000
Maintenance dredge most critical shoals with upland placement. Reduce risk to the public by restoring a degree of navigational safety; reduce risk of failure. Maintenance of this deep-draft high-use waterway precludes draft restrictions and proportionate increased costs. High importance national security Port.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cape Cod Canal, Massachusetts

AUTHORIZATION: Rivers and Harbors Acts of 1927, 1935, 1945 and 1958; and amended by the Public Works Administration Program in 1933 and 1935, the Permanent Appropriations Repeal Act of 1934, and the Emergency Relief Program in 1935. The canal was purchased from the Boston, Cape Cod and New York Canal Company in accordance with a contract dated 29 July 1921.

LOCATION AND DESCRIPTION: The Cape Cod Canal is located about 50 miles south of Boston, Massachusetts and extends across a narrow neck of land joining Cape Cod to the mainland. The project provides for a channel 32 feet deep and 540 to 800 feet wide extending about 17.5 miles from deep water in Buzzards Bay to deep water in Cape Cod Bay. The project also includes navigation improvements in East Boat Basin and Onset Bay, and construction of two high-level highway bridges and a vertical lift railroad bridge, which cross the canal. Major rehabilitation of the Bourne and Sagamore Highway Bridges was completed in 1965 and 1980 respectively. Major rehabilitation of the vertical-lift railroad bridge was completed in 2004.

RECOVERY ACT ALLOCATIONS TO DATE: $4,705,791
CONFERENCE AMOUNT FOR FY 2010: $12,604,000
BUDGET FOR FY 2011: **M**: $7,766,000 **O**: $6,408,000 **T**: $14,174,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $11,426,000 – Funding provides for routine essential operation and maintenance of the Cape Cod Canal Project, including the canal, two highway bridges and vertical-lift Railroad Bridge. These funds are also being used to repair steel members on the Bourne and Sagamore Highway Bridges ($5,000,000).

FRM: N/A

Rec: $2,733,000 – Funding provides for normal operation and maintenance of recreation facilities at the Cape Cod Canal. The project provides recreation opportunities to and average of 3,055,000 visitors each year.

Hydro: N/A

ES: $15,000 – Funding provides for monitoring of Piping Plover nesting areas on project lands. The project consists of 1,655 fee owned acres of land.

WS: N/A

OTHER INFORMATION: The Bourne and Sagamore Highway Bridges are the only two vehicular accesses from mainland Massachusetts to Cape Cod and are crossed by nearly 40 million vehicles annually.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cedar Creek, Delaware

AUTHORIZATION: .The existing project was adopted by the Chief of Engineers on 23 December 1981 under the authority of the Rivers and Harbors Act of 1960, Section 107.

LOCATION AND DESCRIPTION: The project is located north of Milford, Sussex County DE and adjacent to the Mispillion River. The waterway provides a channel five feet deep, 80 feet wide and 3,730 feet long from the confluence of Cedar Creek with the Mispillion River to the state launching ramp, and five feet deep and 50 feet wide thereafter for a distance of 2,470 feet to a point 1,000 feet upstream of the State Route 36 Bridge.

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $ 0

BUDGET FOR FY 2011: **M**: $50,000 **O**: $0 **T**: $50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds in the amount of $50,000 will be used for project monitoring.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This waterway supports the only launch service, Delaware Bay Launch Service, Inc., that provides safe transport of personnel and supplies to Super Tanker Vessels anchored in the Delaware Bay, Big Stone and Breakwater anchorages and the nearby Atlantic Ocean thus serving a critical part in the logistics of lightering tankers so they can proceed up the Delaware River to the various refineries. This service operates 4 commercial crew boats that require drafts up to 6'. They annually complete over 5,000 vessel trips per year and transport 12,000 tons of supplies and deck and engine repair parts as well as transporting 10,000 passengers including Delaware River Pilots to vessels utilizing the Delaware River, Philadelphia to the Sea navigation project. Some of the emergency repair parts for a super tanker can weigh up to 2 tons and significantly increase the draft of a launch vessel. A recent development has been the transportation of Coast Guard personnel for the purpose of conducting national security audits on selected foreign vessels. Restricting and/or delaying these security inspections could provide terrorists the opportunity to successfully strike a U.S. target along the East Coast especially one of the Delaware River Oil refineries or sabotage the Delaware River Main Channel which is the sole avenue for transportation of bulk crude oil and petroleum products vital to the nation's economy and security. The Delaware River is the home of the largest Petrochemical Complex on the East Coast.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charles River Natural Valley Storage Areas, Massachusetts

AUTHORIZATION: Authorized by the Water Resources Development Act of 1974.

LOCATION AND DESCRIPTION: The Charles River is located in eastern Massachusetts and extends inland about 80 miles from Boston Harbor southwesterly towards the Massachusetts and Rhode Island state line. The watershed covers approximately 307 square miles and project lands are located in 16 communities. The project provides for Federal acquisition and perpetual protection of 17 crucial natural valley storage areas totaling 8,115 acres in the middle and upper portion of the watershed. These areas provide natural flood storage to minimize the potential of flood losses within the watershed. Land acquisition began in May 1977 and was completed in September 1983.

RECOVERY ACT ALLOCATIONS TO DATE: $634,050
CONFERENCE FOR FY 2010: T: $261,000
BUDGET FOR FY 2011: M: $29,000 **O**: $300,000 **T**: $329,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $154,000 – Funding provides for routine essential operation and maintenance activities necessary to project the 17 natural valley storage areas from encroachment. Activities include data collection, environmental compliance, boundary surveys and real estate inspections. Project has prevented an estimated $3.2 million in flood damages since complete in 1983.

Rec: $72,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 183,000 visitors per year.

Hydro: N/A

ES: $103,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of the project lands. The project consists of 3,221 fee owned acres of land.

WS: N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Chincoteague Inlet, VA

AUTHORIZATION: Section 107 of the River and Harbor Act of 14 July 1960

LOCATION AND DESCRIPTION: Chincoteague Inlet is located on the Eastern Shore of Virginia in Accomack County. It is the largest commercial port on the Eastern Shore and supports over 3,000 vessels a year. The project supports all types of commercial fishing. Failure to maintain the channel would result in direct economic losses to commercial users as well as local businesses. The project also supports the U.S. Coast Guard and NASA.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: $868,000
BUDGET FOR FY 2011: **M**: $500,000 **O**: $0 **T**: $500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $500,000 funding only provides for maintenance of critical shoals to provide minimal availability for users. Damage and potential loss of life situations will endanger commercial fishing vessels, the U.S. Coast Guard search and rescue vessels and NASA launch support vessels if not the channel is not maintained.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The project provides the primary access from the Atlantic Ocean to the critical harbor of refuge at Chincoteague and other Federal navigation projects in the area. U.S. Coast Guard Station and USCG Group Eastern Shore are located on Chincoteague Inlet. NASA Goddard Space Flight Center, Mid-Atlantic Regional Spaceport, and the U.S. Navy use the project for training operations, range control, payload recovery, and oceanographic missions. $8.2 million of annual income depend upon this project (Accomack Co.)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cold Spring Inlet, New Jersey

AUTHORIZATION: HD 59-338 as modified by HD 77-262

LOCATION AND DESCRIPTION: Cold Spring Inlet connects the New Jersey Intracoastal Waterway with the Atlantic Ocean at Cape May, NJ. The project provides for 2 jetties; an entrance channel 25 feet deep and 400 feet wide from the ocean to 500 feet harbor-ward of the end of the jetties; and a channel 20 feet deep and 300 feet wide from the entrance channel to deep water in Cape May Harbor. Project length is about 2.25 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $640,000

CONFERENCE FOR FY 2010: T: $235,620

BUDGET FOR FY 2011: **M**: $350,000 **O**: $0 T: $350,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $350,000 will be used to perform channel exams and minimal maintenance dredging.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for the largest Fishery Landing in New Jersey (the 13th largest in the U.S.), contributing $35.5 million in direct fish value (NMFS '02) and $300 million of economic value to the nation each year. The Inlet also serves the only U.S. Coast Guard enlistee training base in the U.S. The Coast Guard Station Cape May is also located on the waterway and must have a reliable channel to fulfill their Homeland Security requirements and conduct search and rescue operations. They conducted 1,155 assistance/rescue cases and saved 4 lives from 2000 to 2003 (USCG data). Keeping the Inlet clear of obstructions is critical to the mission of the Coast Guard that has cutters requiring up to 15 feet of draft.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Colebrook River Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Colebrook River Lake is located on the West Branch of the Farmington River, about 8.1 miles above its junction with the main stem of the Farmington River. The project is located in Colebrook, Connecticut and the pool extends into Sandisfield and Tolland, Massachusetts. Colebrook River Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,300 feet long with a maximum height of 223 feet; an earth-filled dike 1,240 feet long with a maximum height of 54 feet; an uncontrolled ogee weir spillway, 205 feet wide with a maximum discharge capacity of 96,000 cubic feet per second; and a 10-foot diameter outlet tunnel with 3 control gates. The reservoir provides a flood storage capacity of 97,700 acre-feet to control runoff from its net drainage area of 118 square miles. Construction of the dam and appurtenant structures was initiated in May 1965 and completed in June 1969. Recreational facilities were initiated in August 1969 and completed in June 1970.

RECOVERY ACT ALLOCATIONS TO DATE: $303,200
CONFERENCE FOR FY 2010: T: $584,000
BUDGET FOR FY 2011: M: $100,000 **O**: $589,000 **T**: $689,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $546,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated $60.9 million in flood damages since placed in service in 1969.

Rec: $63,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 128,000 visitors each year.

Hydro: N/A

ES: $75,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 388 fee owned acres of land.

WS: $5,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conant Brook Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Conant Brook Dam is located along Conant Brook, a tributary of Chicopee Brook, about 2 miles southeast of the Town of Monson, Massachusetts, in Hampden County. Conant Brook Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,050 feet long with a maximum height of 85 feet; an earth-filled dike 980 feet in length; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 10,750 cubic feet per second; and a 36-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 3,740 acre-feet, to control runoff from its net drainage area of 7.8 square miles. Construction of the dam and appurtenant structures was initiated in June 1964 and completed in December 1966.

RECOVERY ACT ALLOCATIONS TO DATE: $26,250
CONFERENCE FOR FY 2010: **T**: $200,000
BUDGET FOR FY 2011: **M**: $111,000 **O**: $292,000 **T**: $403,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $331,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required five year cycle Periodic Inspection of the project. Project has prevented an estimated $2.9 million in flood damages since placed in service in 1966.

Rec: $50,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 30,000 visitors each year.

Hydro: N/A

ES: $2,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 469 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Conant Brook Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in September 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cowanesque Lake, PA

AUTHORIZATION: Flood Control Act of 3 July 1958 (PL 85-500), 85th Congress and described in House Document 394, 84th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Cowanesque Lake is located in Tioga County, Pennsylvania, on the Cowanesque River approximately 2 miles upstream of the confluence with the Tioga River at Lawrenceville, PA. The embankment consists of earth and rockfill, 3,100 feet in length, rising 151 feet above the streambed, with a 400-foot long spillway in the right abutment. The outlet works consist of an excavated approach channel, a combined intake and gate structure, a 15-foot diameter horseshoe tunnel, and a concrete outlet structure with a stilling basin. A conservation lake is maintained at elevation 1080 NGVD having a surface area of 1090 acres, and a length of 4.2 miles. Seventy-nine percent of the conservation storage space is allocated for water supply storage owned by the Susquehanna River Basin Commission. The Corps operates and maintains three recreation areas on Cowanesque Lake.

RECOVERY ACT ALLOCATIONS TO DATE: $387,452
CONFERENCE AMOUNT FOR FY2010: $1,795,000
BUDGET FOR FY2011: **M**: $127,000 **O**: $1,645,000 T: $1,772,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $879,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $739,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $118,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $36,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cumberland, MD & Ridgeley, WV

AUTHORIZATION: Flood Control Act of 22 June 1936 and the Flood Control Act of 24 July 1946 described in House Document No. 101, 73rd Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0207- The project is located in Cumberland, Maryland and Ridgeley, West Virginia. The protective works consist of about 1.6 miles of channel improvements along Wills Creek; 1.7 miles of channel improvement along the North Branch Potomac River; 3 pumping stations; 8 pressure conduits; an industrial water-supply dam; reconstruction of a railroad bridge; track relocations; and reconstruction of piers and abutments for three highway bridges. The project protects Cumberland, Maryland and Ridgeley, West Virginia, against flood discharges 28 percent greater than the maximum flood of record (March 1936). Federal maintenance is provided for the channels of Wills Creek and the North Branch Potomac River. Operation and maintenance of the Federal project is performed by the City Engineering Department of Cumberland under contract with the Baltimore District Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $168,000
BUDGET FOR FY2011: **M**: $0 **O**: $188,000 **T**: $188,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $188,000 - Funding will provide for FDR operation cost for project, which includes salaries, critical stream gages and minimal contracts.

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Roscoe G. Bartlett (MD-6), Alan B. Mollohan (WV-1), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Robert C. Byrd (WV), John D. Rockefeller IV (WV)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Curwensville Lake, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0205- Curwensville Dam is located on the West Branch Susquehanna River about 0.6 miles upstream from Curwensville, Pennsylvania. The dam is an earthfill structure 2,850 feet long, rising 131 feet above the streambed, with a spillway and a gate-controlled outlet. The reservoir has a storage capacity of 124,200 acre-feet at spillway crest and extends 14 miles upstream when filled to that level. The Commonwealth of Pennsylvania furnished assurances that it would coordinate the operation of its George B. Stevenson Dam with the operation of Curwensville Dam, Alvin R. Bush Dam, and Foster Joseph Sayers Dam, in order to secure optimum flood control benefits through operation as a system. Fifty-seven percent of the conservation storage space is allocated for water supply storage, owned by the Susquehanna River Basin Commission. Clearfield County operates and maintains the recreation area under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $657,155
CONFERENCE AMOUNT FOR FY2010: $719,000
BUDGET FOR FY2011: **M**: $151,000 **O**: $536,000 **T**: $687,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $584,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $44,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $44,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $15,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River at Camden, New Jersey

AUTHORIZATION: The existing project, which is a modification to the Delaware River from Philadelphia to the Sea project, was adopted as House Document No. 63-1120 in 1919 and modified by House Document No. 70-111 in 1930 and House Document No. 77-353 in 1945. Section (3a) of the Water Resources Development Act of 1988 authorized the modification of the existing Delaware River in the Vicinity of Camden, New Jersey project. The project document referenced in the authorizing legislation is House Document 100-167 (Delaware River, Philadelphia to Wilmington, Pennsylvania and Delaware). Federal participation in the latest modification work (to 40') within Beckett Street Terminal was accomplished as a result of the project sponsor furnishing assurances of compliance with Section 221 of the Flood Control Act of 1970 (Public Law 91-611) and, entering into a Local Cooperation Agreement as per the Water Resources Development Act of 1986 (PL 99-662).

LOCATION AND DESCRIPTION: This project is located adjacent to the east channel edge of the Delaware River, Philadelphia to Sea project at Camden Marine and Beckett Street Terminals in Camden, New Jersey

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $14,850

BUDGET FOR FY 2011: **M**: $15,000 **O**: $0 **T**: $15,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used to monitor the project.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: The existing project, for which there is Federal interest and local support, provides a 40-foot deep, irregular but generally trapezoidal shaped access channel to Berths #3 and #4 at Beckett Street Terminal. This channel provides access from the 40' x 400' wide east channel of the Delaware River "Philadelphia to the Sea" project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River Philadelphia to the Sea, NJ, PA & DE

AUTHORIZATION: HD 61-733 and modified by HD 71-304, River and Harbors Committee DOC 73-5, SD 75-159, HD 76-580, HD 77-340, HD 83-358 and HD 85-185

LOCATION AND DESCRIPTION: The Delaware River Philadelphia to the Sea Federal navigation channel runs from deep water in the bay to Philadelphia Harbor. Annual maintenance dredging is performed to provide the authorized depth.

RECOVERY ACT ALLOCATIONS TO DATE: $2,853,250

CONFERENCE FOR FY 2010: **T**: $18,439,740

BUDGET FOR FY 2011: **M**: $18,020,000 **O**: $2,000,000 **T**: $20,020,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds will be used for Condition Surveys, Maintenance Dredging, Instrumentation Reading, Disposal Area Maintenance & Construction, Environmental Monitoring, Ft. Mifflin Dike Modification, Groundwater Monitoring, Leased Equipment Contracts, and Real Estate Coordination.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A

OTHER INFORMATION: This is a 40-foot deep draft project, provides safe navigation for large vessels that provide access to the fifth largest port complex in the United States, handling over 120 million tons of high value cargo per year to the nation and $3.5 billion into the regional economy. The port area is home to the largest petrochemical complex on the east coast with seven oil refineries. These refineries along the Delaware River provide 75% of the East Coast capacity, or a capability of processing 1.1 million barrels per day. The port provides more than 54,000 high paying jobs in the area. This project is designated as one of the nation's Strategic Military Ports. This dredging will help to provide an acceptable level of service 100% of the time during the navigation season.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Delaware River, Philadelphia to Trenton, PA & NJ

AUTHORIZATION: The original project was adopted as House Rivers and Harbors Committee Document 71-3 in 1930. Several modifications occurred through the years. The last two, HD 83-358 in 1954 and SD 95-88 in 1976, resulted in the current project operated and maintained by the Government

LOCATION AND DESCRIPTION: The waterway extends from Allegheny Avenue in Philadelphia, PA about 30.5 miles upstream to the Penn Central Railroad Bridge at Trenton, NJ.

RECOVERY ACT ALLOCATIONS TO DATE: $6,178,150

CONFERENCE FOR FY 2010: **T**: $771,210

BUDGET FOR FY 2011: **M**: $0 **O**: $820,000 **T**: $820,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $820,000 will be used to perform channel exams and monitor the project.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: Approximately 7,000 vessels transit this deep draft navigation project annually carrying close to 8.5 million tons of various commodities such as steel, petroleum, chemicals and coal. In addition, two major deep draft Marine Terminals, Tioga and the Port of Bucks County, operate from within the Delaware River, Philadelphia to Trenton project. The Port of Bucks County handles an average of 3 million tons each year ranking them 103rd in the nation for freight traffic. Recent channel examinations identify a significant loss of depth. Maintenance work precludes substantial economic losses within the States of New Jersey and Pennsylvania due to reduced vessel drafts and costly time delays waiting for higher tide stages.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Disposal Area Monitoring, Connecticut, Maine, Massachusetts, New Hampshire, New York and Rhode Island

AUTHORIZATION: Section 404 of the Clean Water Act of 1972 and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.

LOCATION AND DESCRIPTION: The 10 regional open-water dredged material disposal sites are located along coastal New England. The project involves the management and monitoring of 10 regional open-water dredged material disposal sites located along coastal New England. These sites serve over 90 percent of the disposal needs for dredging projects in New England and portions of New York. This includes projects such as Boston, New Haven, Portsmouth, Portland, Providence, New London, Mamaroneck, Port Chester, Milton and many other smaller harbors and navigation projects. Disposal sites in New England receive an average of 1.5 million cubic yards of dredged material per year from Federal, State and private dredging projects. Disposal costs would increase dramatically without access to the regional open-water sites. Surveys, along with sediment sampling and testing, are performed to assure that disposal at these regional sites does not result in hazards to navigation, that capping projects are successful and that unacceptable environmental damage does not occur.

RECOVERY ACT ALLOCATIONS TO DATE: $297,000
CONFERENCE AMOUNT FOR FY 2010: $950,000
BUDGET FOR FY 2011: **M**: $0 **O**: $1,050,000 **T**: $1,050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,050,000 – Funds will be used to perform annual disposal site monitoring; including condition surveys, sediment sampling and testing, repositioning of disposal site buoys and preparation of several monitoring study reports.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Duxbury Harbor, Massachusetts

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1945.

LOCATION AND DESCRIPTION: Duxbury Harbor is located on the west side of Duxbury Bay, about 48 miles south of Boston, Massachusetts. The project provides for an 8-foot entrance channel from deep water to the Town Wharf, and an 8-foot anchorage area of about 21 acres. The project was complete in 1960 and last maintained in November 1996. Proposed maintenance dredging involves removal of about 60,000 cubic yards shoal material. The harbor supports over 2,500 recreation vessels and provides anchorage area for 95 commercial fishing vessels. Shoaling continues to create hazardous conditions for vessels navigating the channel.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: **M**: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $100,000 – Funds will be used to secure environmental approvals, complete an Environmental Assessment and prepare plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Duxbury Harbor has the only developed shore facilities and anchorage areas along the town's 32 miles of coastline. The facilities and 3 public launch ramps provide service to over 2,000 locally based vessels, 500 transient vessels and 95 commercial fishermen.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Brimfield Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: East Brimfield Lake is located along the Quinebaug River, about 64.5 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Holland, Sturbridge and Brimfield, Massachusetts. The project is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 520 feet long and a maximum height of 55 feet; an uncontrolled ogee weir spillway, 75 feet wide with a maximum discharge capacity of 15,520 cubic feet per second; and a 10.5-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides flood storage capacity of 32,220 acre-feet to control runoff from its net drainage area of 67.5 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in June 1960.

RECOVERY ACT ALLOCATIONS TO DATE: $626,200
CONFERENCE FOR FY 2010: **T**: $903,000
BUDGET FOR FY 2011: **M**: $144,000 **O**: $413,000 **T**: $557,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $475,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $107 million in flood damages since placed in service in 1960.

Rec: $50,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 98,000 visitors each year.

Hydro: N/A

ES: $28,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,070 fee owned acres of land.

WS: $4,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: East Brimfield Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in November 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: East Chester Creek, NY

AUTHORIZATION: The existing project was adopted in the River and Harbors Act of 1930, H. R. 11781,and modified in River and Harbor Act 1950, H.R. 5472 (PL 516)

LOCATION AND DESCRIPTION: East Chester Creek is located in the Bronx, NY along the East River in the Port of NY& NJ. East Chester Creek allows safe passage of oil barges and construction materials to Bronx County and Westchester County in the city of New York. Maintenance dredging has been performed under the previous project adopted in 1930 which provided for a channel 8 ft. deep below MLW and generally 150 ft. wide from Long Island Sound through East Chester Bay to a point 700 ft. below the Boston Post Road Bridge, and thence 70 ft. wide to the northern terminus of the project, about 300 ft. above the Fulton Street Bridge. No work has been done under the project modification adopted in 1950.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $3,887,000
BUDGET FOR FY2011: M: $150,000 **O**: $0 **T**: $150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $150,000
Funds will be used for caretaker status to monitor channel conditions, publish controlling depth reports and coordinate with USCG and navigation stakeholders.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East River, NY

AUTHORIZATION: Rivers and Harbors Act of 1869 and subsequently modified by the River and Harbors Act of 1877, 1899, 1916, 1922 and 1970.

LOCATION AND DESCRIPTION: East River is located to the east of Manhattan, NY. East River Navigation project is a main channel 16 miles long, 1,000 ft. wide that meanders from the Upper New York Bay to the Long Island Sound. There are three short branch channel off of the main channel; 1) east of Welfare Island, 2) east of South Brother Island, called South Brother Island channel and 3) a channel west of South Brother Island.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $285,000
BUDGET FOR FY2011: **M**: $2,800,000 **O**: $0 **T**: $2,800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $2,800,000
Funds will be used for maintenance dredging of critical shoals at South Brother Island on this important high use waterway.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Rockaway Inlet, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1930, Public Law 520, with recommendations contained in House Doc. 19, 71st Congress.

LOCATION AND DESCRIPTION: East Rockaway Inlet is located along the south shore of New York City. The periodic maintenance of the channel is necessary to restore navigational safety to the multiple users of this dynamic, rapidly shoaling inlet.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $2,803,000
BUDGET FOR FY2011: M: $0 **O**: $200,000 **T**: $200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $200,000
Funds will be used for Engineering and Design to prepare for future dredging and to monitor channel conditions, publish controlling depth reports and coordinate with local interests. Dredging is important to assure the safe delivery of petroleum products and reduce the chance of groundings.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: East Sidney Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- East Sidney Lake is located on Ouleout Creek, about 5 miles above the confluence of the creek with the Susquehanna River near Unadilla, NY. The dam is a combined earthfill and concrete gravity type structure; 2,010 feet long, rising 146 feet from firm rock and 130 feet above the streambed, with a spillway and five gate-controlled outlets in the concrete section. The reservoir has a storage capacity of 33,550 acre-feet at spillway crest and has an area of 1,100 acres when filled to that level. The project controls a drainage area of 102 square miles, 5 percent of the watershed of the Susquehanna River upstream from Binghamton, NY, exclusive of the separately controlled Chenango River. The project forms part of the protection for Binghamton, and it reduces flood heights throughout the Susquehanna River basin. The Town of Sidney, NY operates and maintains the East Sidney Recreation Area under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $57,508
CONFERENCE AMOUNT FOR FY2010: $559,000
BUDGET FOR FY2011: **M**: $110,000 **O**: $463,000 **T**: $573,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $540,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $19,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $14,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Scott Murphy (NY-20), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Edward McDowell Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Edward MacDowell Lake is located along Nubanusit Brook, a tributary of the Contoocook River. The project is located in the Towns of Peterborough, Hancock, Dublin and Harrisville, New Hampshire. Edward MacDowell Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 11,000 feet long with a maximum height of 67 feet; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 16,600 cubic feet per second; and a 7-foot square outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 12,800 acre-feet to control runoff from its net drainage area of 44 square miles. Construction of the dam and appurtenant structures was initiated in March 1948 and completed in March 1950.

RECOVERY ACT ALLOCATIONS TO DATE: $69,509
CONFERENCE FOR FY 2010: **T**: $532,000
BUDGET FOR FY 2011: **M**: $154,000 **O**: $481,000 **T**: $635,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $498,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $16.2 million in flood damages since placed in service in 1950.

Rec: $78,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 94,000 visitors each year.

Hydro: N/A

ES: $59,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,194 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Edward MacDowell Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in September 2009. The principles issues are stability and seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fire Island to Jones Inlet, NY

AUTHORIZATION: The Fire Island Inlet and Shore Westerly to Jones Inlet, New York Federal Beach Erosion Control and Navigation Project was adopted by the Rivers and Harbors Act of 1958 and subsequently modified by the Rivers and Harbors Acts of 1962.

LOCATION AND DESCRIPTION: Fire Island Inlet is located approximately 40 miles east of the Battery, NYC. This 1.8 mile project provides for a channel 14 feet deep (MLW) and connects the Great South Bay with the Atlantic Ocean. This is a multi-purpose project combing navigation and beach erosion control, with the placement of sand on the beach being subject to local cost shared funds.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $143,000
BUDGET FOR FY2011: M: $100,000 **O**: $0 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used to prepare for future dredging and placement of material for coastal protection, publish controlling depth reports, perform surveys and coordinate with USCG, local partners. Future work would be to dredge the navigation inlet and deposition basin and place designed volume (1,500,000 CY) of sand on feeder beach (Gilgo Beach shoreline)

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Flushing Bay & Creek, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1902 and subsequently modified by the Rivers and Harbors Acts of 1935 and 1962.

LOCATION AND DESCRIPTION: Flushing Bay and Creek, NY is located in the NY/NJ Harbor Estuary adjacent to LaGuardia Airport in the East River. The existing navigation project in Flushing Bay and Creek provides for bay channel, a creek channel, an irregularly shaped maneuvering area, and an anchorage basin.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $60,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N:
$100,000 – Funds will be ued for caretaker activities to monitor channel conditions, publish controlling depth reports, estimate incremental volumes and coordinate with USCG and local partners.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Foster J. Sayers Dam, PA

AUTHORIZATION: Flood Control Act of 3 September 1954 and described in House Document 29, 84th Congress, 1st Session.

LOCATION AND DESCRIPTION: System Code 0205- Foster Joseph Sayers Dam is located on Bald Eagle Creek approximately one mile upstream from Blanchard and 14 miles above the mouth at Lock Haven, Pennsylvania. The dam is of earthfill construction with a maximum height of 100 feet above the streambed and a top length of 6,835 feet. It has a gated outlet tunnel for the regulation of flood flows. The spillway, located in rock in a saddle adjacent to the left abutment, is uncontrolled. The reservoir has a storage capacity of 99,000 acre-feet at spillway crest, and will extend upstream for 10.0 miles. The project reduces flood heights on Bald Eagle Creek below the dam and along the West Branch below Lock Haven. The project also maintains a pool of 1,730 acres during the recreation season. The Commonwealth of Pennsylvania furnished assurances that it would coordinate the operation of its George B. Stevenson Dam with the operation of Curwensville Dam, Alvin R. Bush Dam, and Foster Joseph Sayers Dam, in order to secure optimum flood control benefits through operation as a system. The Commonwealth of Pennsylvania, Department of Conservation and Natural Resources (DCNR) operates and maintains the recreation area, Bald Eagle State Park, under a real estate lease.

RECOVERY ACT ALLOCATIONS TO DATE: $60,800
CONFERENCE AMOUNT FOR FY2010: $641,000
BUDGET FOR FY2011: **M**: $168,000 **O**: $504,000 **T**: $672,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $593,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $20,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $59,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA- 5)
Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Fox Point Hurricane Barrier, Rhode Island

AUTHORIZATION: Authorized by the Flood Control Act of 1958. Section 2866 of the National Defense Authorization Act for Fiscal Year 2007 (PL 109-364, dated October 17, 2006) transferred responsibility of the project to the Corps of Engineers.

LOCATION AND DESCRIPTION: The Fox Point Hurricane Barrier is located across the Providence River in Providence, Rhode Island, about one mile from the downtown area. The barrier is a 700-foot long concrete structure, 25 feet high and contains a 214-foot long pumping station and three 40 foot by 40 foot tainter gates. The pumping station contains five 4,500 horsepower pumps. When closed, the gates prevent entry of tidal floodwaters into the city. The project was completed in 1966 and turned over to the City of Providence to operate and maintain.

RECOVERY ACT ALLOCATIONS TO DATE: $3,761,200
CONFERENCE FOR FY 2010: **T**: $475,000
BUDGET FOR FY 2011: **M**: $170,000 **O**: $330,000 **T**: $500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $500,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the barrier gates and protect life and property in downtown Providence during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Project has prevented an estimated $2.5 million in flood damages since placed in service in 1966.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In accordance with the National Defense Authorization Act of 2007, O&M responsibility of the project is being transferred to the Corps in 2010.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Francis E. Walter Dam & Reservoir, Pennsylvania

AUTHORIZATION: Parent Project authorized by HD 79-587 (1946), modified by HD 87-522 (1962)

LOCATION AND DESCRIPTION: The project is located on the Lehigh River, just below the mouth of Bear Creek, about 6 miles above White Haven, Pennsylvania and approximately 77 miles above the junction of the Lehigh and Delaware Rivers at Easton, Pennsylvania. The project consists of an earth fill dam with a concrete spillway of 139,000cfs capacity and a gate controlled outlet tunnel of 10,000cfs capacity. The reservoir capacity is 108,000 acre-feet for flood management with a conservation pool of 2,000 acre-feet capacity. Recreation facilities also include a boat launch area, hiking trails and provision for fishing and hunting.

RECOVERY ACT ALLOCATIONS TO DATE: $1,264,000

CONFERENCE FOR FY 2010: **T**: $911,790

BUDGET FOR FY 2011: **M**: $81,000 **O**: $799,000 **T**: $880,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: $759,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots, picnic areas and an overlook area. Other specific work includes lead paint remediation, real estate (NAB), continuing evaluation gathering, dam safety, water-control and water-quality analysis.

REC: $0 N/A

HYDRO: $0 N/A.

ES: $121,000 will be used for labor to work on the projects Historic Management Plan. In addition, funds will be used to continue restoration of 5 acres of quarried lands adjacent to a previously restored wetland. The work includes the placement of topsoil, lime and fertilizer over the area, planting grasses, native shrubs & trees donated by the Pa. Game Commission. Work will be accomplished by onsite personnel & volunteers. The restored area will provide nesting, feeding, and breeding habitat for resident and migratory aquatic and terrestrial wildlife species.

WS: $0 N/A.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Franklin Falls Dam, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Franklin Falls Dam is located along the Pemigewasset River, about 2.5 miles upstream of Franklin, New Hampshire, in the Towns of Franklin, Hill, Bristol, Sanborton and New Hampton, New Hampshire. The project is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. The project consists of an earth-filled dam with rock slope protection, 1,740 feet long with a maximum height of 140 feet; an uncontrolled ogee weir spillway, 546 feet wide with a maximum discharge capacity of 243,000 cubic feet per second; and a 22-foot diameter horseshoe-shaped outlet conduit with 4 control gates. The reservoir provides a flood storage capacity of 154,000 acre-feet to control runoff from its net drainage area of 1,000 square miles. Construction of the dam and appurtenant structures was initiated in November 1939 and completed in October 1943.

RECOVERY ACT ALLOCATIONS TO DATE: $222,950
CONFERENCE FOR FY 2010: **T**: $1,826,000
BUDGET FOR FY 2011: **M**: $128,000 **O**: $596,000 **T**: $724,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $560,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included are required inspections of 8 public use bridges located on project lands. Project has prevented an estimated $165 million in flood damages since placed in service in 1943.

Rec: $77,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 107,000 visitors each year.

Hydro: N/A

ES: $87,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included are milfoil treatments at Shaw Cove boat launch area. The project consists of 3,897 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Franklin Falls Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issues are overtopping and seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Gathright Dam and Lake Moomaw, VA

AUTHORIZATION: The 1964 Flood Control Act.

LOCATION AND DESCRIPTION: Gathright Dam and Lake Moomaw, located 43 miles above the mouth of the Jackson River, and 17 miles upstream of Covington, Virginia, are operated to reduce flood damages at downstream locations, augment low flow conditions and provide for water-based recreation.

RECOVERY ACT ALLOCATIONS TO DATE: $261,000
CONFERENCE FOR FY 2010: $2,208,000
BUDGET FOR FY 2011: **M**: $0 **O**: $2,268,000 **T**: $2,268,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ N/A

FRM: $2,268,000 will provide for routine operations of Gathright Dam and Lake Moomaw, including the rock filled dam, multi-level intake tower, water and wastewater treatment plants, and support facilities. The funding is required to comply with Public Law, and control water levels behind dam to provide flood risk management.

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The requested funding is necessary for the District to insure the continued safety and integrity of Gathright Dam. Although funded only for Flood Risk Management, the project also provides improved water quality through low flow augmentation. Recreation services are provided at sites operated by the U.S. Forest Service.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: General Edgar Jadwin Dam and Reservoir, Pennsylvania

AUTHORIZATION: This project was authorized via HD 113, 80th Congress, 1st Session (1948).

LOCATION AND DESCRIPTION: On Dyberry Creek, 3 miles above Honesdale, PA; about 29 miles above the junction of the Lackawaxen and Delaware Rivers. Flood Control Dam - Earth fill dam 109 feet high and 1,255 feet long on the crest, with an outlet tunnel of 2,500cfs capacity and a chute-type spillway of 69,000cfs capacity. Reservoir capacity is 24,500 acre-feet for flood control, with no conservation pool. Recreational Facilities - There is no permanent pool and no provisions have been made for recreational use however low impact opportunities such as hunting, stream fishing, hiking and bird watching are enjoyed by visitors to the project lands.

RECOVERY ACT ALLOCATIONS TO DATE: $849,300

CONFERENCE FOR FY 2010: **T**: $210,870

BUDGET FOR FY 2011: **M**: $0 **O**: $250,000 **T**: $250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: $250,000 will be used for normal operations and maintenance, water control analysis, real estate (NAB), continuing evaluation gathering, dam safety, water control data collection

REC: $0 N/A

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great Kills Harbor, Staten Island, NY

AUTHORIZATION: Adopted 1927, modified 1938

LOCATION AND DESCRIPTION: A channel, 10 ft. deep, 150 ft wide, from deep water in Lower New York Bay to the entrance of the harbor in the vicinity of the present westerly end of Crooks Island, thence of same depth and width along the west side of the harbor. Length – about 1.9 miles. An anchorage area, 8 ft. deep and 138 acres in extent.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: **T:** $60,000
BUDGET FOR FY2011: **M**: $0 **O**: $60,000 **T**: $60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $60,000
Funds will be used for caretaker activities to monitor conditions and coordinate channelo survey data with navigation stakeholders. Initiate Engineering and Design for maintenance dredging of critical shoals to restore navigational safety at entrance to Harbor.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Great South Bay, NY

AUTHORIZATION: Rivers and Harbors Act of 13 June 1902 and modified in 1970

LOCATION AND DESCRIPTION: The channel is 200 ft wide and 10 feet deep and almost 20 miles long, extending from Fire Island Inlet to the central Great So. Bay, Patchogue River reach is part of the Great South Bay, N.Y. project. It is located on the south shore of Long Island at the Village of Patchogue, Suffolk County, N.Y, and is a 10-foot navigation channel, justified to 8 feet, that serves public commuter ferries between the main land and the barrier islands of Fire Island, which are only accessible by commercial ferry.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $60,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to monitor conditions and coordinate channel survey data with navigation stakeholders. Funds will also be used to initiate Engineering and Design for maintenance dredging at the most critical shoals at minimum depth for ferry service from Patchogue River segment to Fire Island National seashore. The ferry service is the only means of access for visitors of Fire Island National Seashore and residents of Fire Island communities.

FRM:

Rec:

Hydro:

ES:

WS:

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hampton Roads Drift Removal, VA

AUTHORIZATION: Section 102 of the River and Harbor Act of 1950

LOCATION AND DESCRIPTION: The project area includes Hampton Roads, the harbors of Norfolk and Newport News, and tributary waters in Virginia. The project provides for the collection and removal of floating debris for the protection of navigation. Removal of debris 7 days a week is essential for the safety of the port, Homeland Security, US Navy and commercial shipping traffic. The project also provides for disposal of debris at Craney Island. The principal tributaries are the James River, Elizabeth River, and Nansemond River. The harbor area involves a total water surface of about 75 square miles, with approximately 32 miles of developed waterfront and 300 terminal facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $145,000
CONFERENCE FOR FY 2010: $838,000
BUDGET FOR FY 2011: **M**: $1,225,000 **O**: $0 **T**: $1,225,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,225,000 will provide an efficient and cost effective method of removing hazards to navigation for the channels of Hampton Roads, to prevent collisions with hulls and critical appendages and possible sinking of military, commercial and pleasure vessels.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: In some previous years, the funding on this project was reduced and did not allow the program to continue debris collection 7 days a week. The budget amount for FY 2011 will enable debris collection daily, 7 days a week. The channels supported by this project provide an average of over 100,000 vessel trips annually.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hancock Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Hancock Brook Lake is located along Branch Brook, about 2 miles upstream from its confluence with the Naugatuck River. The project is located in Thomaston and Watertown, Connecticut. Hancock Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 630 feet long and a maximum height of 57 feet; an uncontrolled ogee weir spillway, 100 feet wide with a maximum discharge capacity of 16,600 cubic feet per second; and an un-gated rectangular outlet conduit. The reservoir provides a flood storage capacity of 4,030 acre-feet to control runoff from its net drainage area of 12 square miles. Construction of the dam and appurtenant structures was initiated in July 1963 and completed in August 1966.

RECOVERY ACT ALLOCATIONS TO DATE: $112,650
CONFERENCE FOR FY 2010: **T**: $420,000
BUDGET FOR FY 2011: **M**: $77,000 **O**: $401,000 **T**: $478,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $381,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required five year cycle Periodic Inspection of the project. Project has prevented an estimated $37.7 million in flood damages since placed in service in 1966.

Rec: $50,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 73,000 visitors each year.

Hydro: N/A

ES: $47,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 707 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Hancock Brook Dam and the Rail Road Dike portion of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in November 2009. The principle issue is seepage for both the dam and dike.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hodges Village Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Hodges Village Dam is located along the French River, about 15 miles upstream from its confluence with the Quinebaug River. The project is located in the Town of Oxford, Massachusetts. Hodges Village Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,140 feet long and a maximum height of 54.5 feet; 4 earth-filled dikes with stone slope protection, a total length of 2,560 feet and a maximum height of 16 feet; an uncontrolled ogee weir spillway, 125 feet wide with a maximum discharge capacity of 25,800 cubic feet per second; and 2 rectangular outlet conduits with 2 control gates. The reservoir provides a flood storage capacity of 13,250 acre-feet to control runoff from its net drainage area of 31.1 square miles. Construction of the dam and appurtenant structures was initiated in March 1958 and completed in December 1959. Major rehabilitation of the dam was completed in July 2000.

RECOVERY ACT ALLOCATIONS TO DATE: $230,550
CONFERENCE FOR FY 2010: **T**: $539,000
BUDGET FOR FY 2011: **M**: $195,000 **O**: $434,000 **T**: $629000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $505,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required five year cycle Periodic Inspection of the project. Project has prevented an estimated $106 million in flood damages since placed in service in 1959.

Rec: $70,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 120,000 visitors each year.

Hydro: N/A

ES: $54,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is boundary monument recertification on project lands. The project consists of 867 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hop Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Hop Brook Lake is located on Hop Brook, about 1.4 miles upstream from its confluence with the Naugatuck River. The project is located in Waterbury, Middlebury and Naugatuck, Connecticut. Hop Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 520 feet long with a maximum height of 97 feet; an earth-filled dike 440 feet long with a maximum height of 33 feet; an uncontrolled broad crested spillway weir, 200 feet wide with a maximum discharge capacity of 23,000 cubic feet per second; and a rectangular outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 6,970 acre-feet to control runoff from its net drainage area of 16.4 square miles. Construction of the dam and appurtenant structures was initiated in December 1965 and completed in December 1968.

RECOVERY ACT ALLOCATIONS TO DATE: $226,850
CONFERENCE FOR FY 2010: T: $871,000
BUDGET FOR FY 2011: **M**: $158,000 **O**: $934,000 T: $1,092,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $637,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of one public use bridge located on project lands. Project has prevented an estimated $49.1 million in flood damages since placed in service in 1968.

Rec: $327,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 198,000 visitors each year.

Hydro: N/A

ES: $128,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a wetland survey on project lands. The project consists of 538 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Hop Brook Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issue is seepage. A grouting contract was awarded in September 2009, using ARRA Construction funds, to address the seepage issue at the dam.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hopkinton-Everett Lakes, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Act of 1938.

LOCATION AND DESCRIPTION: Hopkinton Lake is located along the Contoocook River, about 17.3 miles upstream of its junction with the Merrimack River and one-half mile upstream from the Village of West Hopkinton, New Hampshire. Everett Lake is located along the Piscataquog River, about 16 miles upstream of its junction with the Merrimack River and about 1.3 miles southeast of the Village of East Weare, New Hampshire. Hopkinton-Everett Lakes are operated as part of a comprehensive system of flood control projects designed to protect life and property within the Merrimack River Basin. Hopkinton Lake consists of an earth-filled dam with rock slope protection, 790 feet long with a maximum height of 76 feet; 4 earth-filled dikes with a total length of 16,300 feet; an uncontrolled ogee weir spillway, 300 feet wide with a maximum discharge capacity of 135,000 cubic feet per second; and three 11-foot square outlet conduits with 6 control gates. Everett Lake consists of an earth-filled dam with rock slope protection, 2,000 feet long with a maximum height of 115 feet; an uncontrolled ogee weir spillway, 175 feet wide with a maximum discharge capacity of 68,000 cubic feet per second; and an 8-foot diameter outlet conduit with 3 control gates. The two reservoirs provide a total flood storage capacity of 92,500 acre-feet to control runoff from their net drainage areas of 446 square miles. Construction of the dams were initiated in November 1959 and completed in December 1962.

RECOVERY ACT ALLOCATIONS TO DATE: $418,000
CONFERENCE FOR FY 2010: **T**: $1,091,000
BUDGET FOR FY 2011: **M**: $247,000 **O**: $1,193,000 **T**: $1,440,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $1,059,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is required inspection of one public use bridge located on project lands. Project has prevented an estimated $184 million in flood damages since placed in service in 1962.

Rec: $181,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 313,000 visitors each year.

Hydro: N/A

ES: $200,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 7,992 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Everett Dam and Dikes P1 and P2 portions of the project were assigned Dam Safety Assurance Classification (DSAC) ratings of III in March 2009. The principle issue for both the dam and dikes is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River Channel, NY

AUTHORIZATION: Rivers and Harbors Acts of 1913 and modified in 1917 and 1937

LOCATION AND DESCRIPTION: A channel 45 ft. deep, suitably widened at bends, from deep water in Upper New York Bay to W. 40th St., Manhattan, and thence 48 ft. deep, 2,000 ft. wide to 59th St. Length – about 6 miles. A channel 40 ft. deep for the full width of the river, extending from deep water in Upper New York Bay off Ellis Island to W. 59th St., Manhattan. Length – about 6 miles. A channel, 30 ft. deep, 750 ft. wide, along the Weehawken-Edgewater waterfront. Length – about 5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $60,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports, coordination with USCG and local partners

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (Maintenance)

AUTHORIZATION: House Document 719, 81st Congress, 2nd Session (Jun 1910) and modified by House Document 350, 88th Cong., 1st Session (Mar 1925); House Document 210, 70th Cong., 1st Session (Jul 1930); SD 155, 72nd Cong., 2nd Session (Aug 1935); House Document 572, 75th Cong., 3rd Session (Jun 1930); and PL 780, 83rd Cong., 2nd Session (Sep 1954).

LOCATION AND DESCRIPTION: The Hudson River, New York federal navigation project consists of a channel approximately 155 miles in length extending from New York City, N.Y. to its upstream terminus at Waterford, N.Y. The Hudson River Maintenance project provides for maintenance of the 32 feet deep navigation channel extending approximately 145 miles from New York City to Albany, N.Y, continuing with a 14 feet deep navigation channel extending approximately 10 miles upstream from Albany to the intersection with the New York State Barge Canal System at Waterford, N.Y.

RECOVERY ACT ALLOCATIONS TO DATE: $583,650
CONFERENCE AMOUNT FOR FY2010: $1,207,000
BUDGET FOR FY2011: **M**: $3,700,000 **O**: $0 **T**: $3,700,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $3,700,000
Maintenance dredging contract to restore project depths for the Castleton to Hudson reaches. Initiate environmetal assessment and coordination associated with proposed nothward expansion of the active placement cell of the Houghtaling Island dredged material site.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hudson River, NY (O&C)

AUTHORIZATION: House Document 719, 81st Congress, 2nd Session (Jun 1910) and modified by House Document 350, 88th Cong., 1st Session (Mar 1925); House Document 210, 70th Cong., 1st Session (Jul 1930); SD 155, 72nd Cong., 2nd Session (Aug 1935); House Document 572, 75th Cong., 3rd Session (Jun 1930); and PL 780, 83rd Cong., 2nd Session (Sep 1954).

LOCATION AND DESCRIPTION: The Hudson River O&C project provides for operation and care of the Troy Lock and Dam located on the Hudson River, Troy, New York approximately 2.5 miles below the upstream limit of the Hudson River Federal Navigation Channel at Waterford, N.Y.

RECOVERY ACT ALLOCATIONS TO DATE: 1,979,250
CONFERENCE AMOUNT FOR FY2010: $1,473,000
BUDGET FOR FY2011: **M**: $1,650,000 **O**: $0 **T**: $1,650,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $1,650,000
Funds will be used to operate the navigation lock at a minimum level of service to match NYS Canal Corp operations, perform only essential maintenance to keep facility operational. Funds will also be used to repair DS miter gates, foundation plate, and gate support components.
A contract will be awarded to install new electrical utility crossover and cable replacement.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance Division:

PROJECT NAME: Indian River Inlet and Bay, Delaware

AUTHORIZATION: R&H Committee Doc. 41, 75th Congress, 1st Session (1937) and modified by R&H Act HD 330, 76th Congress, 1st Session (1945).

LOCATION AND DESCRIPTION: The waterway flows easterly 13 miles from Millsboro, Delaware through Sussex County into Indian River Bay thence through the inlet to the Atlantic Ocean. Entrance channel 15 feet deep and 200 feet wide for a distance of 7,000 feet inshore from the jetties; thence a channel 9 feet deep and 100 feet wide in the Bay; thence a channel 9 feet deep and 80 feet wide in the river to Old Landing; thence a channel 4 feet deep and 60 feet wide to the highway bridge at Millsboro. Turning Basins: - 9 feet deep, 175 feet wide and 300 feet long at Old Landing, 4 feet deep, 150 feet wide and 150 feet long at Millsboro.

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $ 0

BUDGET FOR FY 2011: **M**: $100,000 **O**: $0 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds in the amount of $100,000 will be used for project monitoring and coordinate with navigation stakeholders.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This project provides a safe, reliable, and efficient navigation channel for commercial, recreational and U.S. Coast Guard use. Two scour holes have formed at Indian River Inlet, Delaware, between the inlet channel and the north shore of the bay. One, a deep scour hole with a maximum depth of about 80 feet has developed within 100 feet of the bulkhead at the US Coast Guard (USCG) facility. The scour hole threatens the structural integrity of the bulkhead that was designed and constructed for conditions significantly shallower than exist at present. The second hole, with a depth of approximately 30 feet, has formed along the stone revetment constructed in 1988 by the US Army Corps of Engineers (USACE) adjacent to the USCG bulkhead. The revetment is currently protecting several structures recently constructed by the State of Delaware.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: IWW, Delaware River to Chesapeake Bay, Delaware and Maryland

AUTHORIZATION: HD 63-196 in 1919 and modified by Section 3 of the R & H Act of 1927, by R & H Comm. Doc. 71-41 and SD 71-151 in 1930, by HD 72-201, HD 73-18, and HD 73-24 in 1935, and by SD 83-123 in 1954 and modified by H.R. 5314 (WRDA 1990).

LOCATION AND DESCRIPTION: The waterway extends from Reedy Point on the Delaware River, about 41 miles downstream from Philadelphia, Pa. through a sea level canal westward to the Elk River, thence following the Elk River and the upper Chesapeake Bay to deep water near Pooles Island. Maintenance consists of 46 miles of channels (35' x 450'), an anchorage and turning basin on Back Creek and at Chesapeake City, and the Delaware City Branch channel (8' x 50' x 2 miles). Maintain and repair 5 bridges. Maintain entrance jetties at Reedy Point, maintenance roads and drainage ditches along canal banks, upland disposal areas, and rip rap or bulkhead stabilized channel banks by leased contract.

RECOVERY ACT ALLOCATIONS TO DATE: $17,249,350

CONFERENCE FOR FY 2010: T: $ 26,710,200

BUDGET FOR FY 2011: **M**: $13,475,000 **O**: $2,600,000 T: $16,075,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $16,075,000 will be used for normal operations and maintenance of the project, including dispatching & maintenance of CCTV system, channel exams, and to meet legal requirements for five (5) highway bridges. Funding will also be used to maintain buildings, grounds, utilities, canal banks & disposal areas; to perform periodic inspection of both St. George's and Delaware City Bridges; perform miscellaneous repairs, remove lead paint, and apply corrosion protection to Reedy Point Bridge (Phase I); to perform load rating and gusset plate analysis of Reedy Point and Summit Bridge, and to perform critical maintenance dredging to provide safe and economical navigation channel for commercial shipping.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: IWW, Rehoboth Bay to Delaware Bay, Delaware

AUTHORIZATION: HD 823, 60th Cong. 1st session and R&H Committee Doc. 51, 61st Cong., 3rd session, modified by H. Doc. 344, 77th Congress, 1st session.

LOCATION AND DESCRIPTION: This waterway is a tidal canal in the southeasterly part of Sussex County, Delaware. It extends 12 miles northward from Rehoboth Bay through the highlands west of the town of Rehoboth to its junction with the Broadkill River. Roosevelt Inlet, the entrance to the waterway from Delaware Bay, is located about 2 miles above the town of Lewes, DE.

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $ 69,300

BUDGET FOR FY 2011: **M**: $100,000 **O**: $0 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $100,000 will be used for project monitoring of navigation mitigation component.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: The Inland Waterway Rehoboth Bay to Delaware Bay, Delaware is a shallow draft navigation project. It has an authorized depth of 10 feet through the Inlet Entrance Channel. Failure to maintain the waterway results in the channel being unavailable to the primary users 50% of the time. The local commercial fleet consists of approximately 65 Charter boats and 15 Head boats. The University of Delaware maintains four research vessels that are stationed within the project. The largest, Research Vessel Henlopen, draws 10'. This Institution also provides mooring for research vessels from visiting Universities. The Roosevelt Inlet Coast Guard Station located on the waterway performs routine patrols, emergency response activities and operates a 47' buoy tender. The Delaware Bay and River Cooperative, whose mission is oil spill emergency response/cleanup for events occurring in the Delaware River and Bay, is based in this waterway. The DBRC has positioned the 166 feet long by 11 feet draft Oil Spill Response Vessel DELRIVER in Lewes. Of new concern is the Homeland Security Act, which requires the DELRIVER to maintain and abide by the vessel's security plan. At certain MARSEC levels the vessel must leave the pier immediately.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jamaica Bay, NY

AUTHORIZATION: Rivers and Harbors Act of 21910 and subsequently modified by the Rivers and Harbors Act of 1945 and 1950.

LOCATION AND DESCRIPTION: Jamaica Bay federal navigation channel/Rockaway Inlet is located along the south shore of New York City. The entrance channel only is approximately 2 miles in length.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $209,000
BUDGET FOR FY2011: M: $120,000 **O**: $0 T: $120,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $120,000
Funds will be used for stakeholder coordination and initial Engineering and Design, including providing condition survey and controlling depth evaluation for future maintenance. Future work would be for maintenance dredging of most critical shoals to allow safe passage of petroleum and sewage sludge barges and commercial fishing vessels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: James River, VA

AUTHORIZATION: River and Harbor Act of 5 July 1884. The project was modified by the River and Harbor Acts of 13 June 1902, 3 March 1905, 3 July 1930, 26 August 1937, 2 March 1945, 17 May 1950 and 23 October 1962.

LOCATION AND DESCRIPTION: The James River channel provides approximately 90 miles of deep-draft navigation from Hampton Roads, VA to Richmond, VA. The project provides for a channel 25 feet deep, 300 feet wide from Hampton Roads to Hopewell, VA, approximately 70 miles, and 25 feet deep, 200 feet wide from Hopewell to Richmond Deepwater Terminal, approximately 15 miles. Thence, 18 feet deep, 200 feet wide from Richmond Deepwater Terminal to the head of navigation at the Richmond locks, approximately 5 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $3,006,000
CONFERENCE FOR FY 2010: $4,257,000
BUDGET FOR FY 2011: M: $4,000,000 **O**: $180,000 **T**: $4,180,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,180,000 will provide for operations and maintenance dredging of Dancing Point-Swann Point Shoal, Richmond Deepwater Terminal, and Goose Hill Shoal. The funding ensures safe, unrestricted navigation through these rapidly shoaling segments. Condition surveys of critical shoals along the river will be performed, ensuring Pilots have updated information for safe navigation. If dredging is not funded, the navigation project will cease to function as designed; users will not be able to safely and efficiently deliver raw materials or ship finished products from facilities.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The project supports deep-draft commercial navigation to the Ports of Hopewell and Richmond, and numerous industries along the river. The channel is dredged, at different locations, annually. Higher-than-normal shoaling in FY 2009 forced the Virginia Pilots Association to impose a draft restriction on vessels transiting the project. FY 2010 dredging is expected to relieve the draft restriction.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jennings Randolph Lake, MD & WV

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in House Document 469, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0207- Jennings Randolph Lake project, located in Garrett County, Maryland, and Mineral County, West Virginia, on the North Branch Potomac River, is 7.9 miles upstream from the mouth of Savage River at Bloomington, MD. The dam is a rolled earth and rockfill structure rising 296 feet from the streambed and extending 2,130 feet across the valley. The project includes a rolled earth and rockfill dike 900 feet long on the left (north) bank, and a spillway with tainter gates along the ridge between the dike and the dam. Outlet works are provided in the right (south) abutment. With a full conservation pool, the lake, controlling a drainage area of 263 square miles, is about 5.5 miles long and has a surface area of 952 acres. Forty-five percent of the storage space in the project is allocated for water supply storage, owned by the Washington Suburban Sanitary Commission, District of Columbia, and Fairfax County. The Corps operates and maintains six recreation areas, and two recreation areas are operated and maintained by Mineral County and the Maryland Department of Natural Resources.

RECOVERY ACT ALLOCATIONS TO DATE: $691,000
CONFERENCE AMOUNT FOR FY2010: $1,691,000
BUDGET FOR FY2011: M: $289,000 **O**: $1,467,000 **T**: $1,756,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $1,087,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $393,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $246,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $30,000 - Funding will provide for water coordination.

OTHER INFORMATION: Congressional Interest: Congressmen Roscoe G. Bartlett (MD-6), Alan B. Mollohan (WV-1), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Robert C. Byrd (WV), John D. Rockefeller IV (WV)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jones Inlet, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1945

LOCATION AND DESCRIPTION: Jones Inlet is an Atlantic Ocean inlet with a 12-foot channel on the south shore of Long Island in the Town of Hempstead, N.Y. serving commercial fishing vessels and a U.S. Coast Guard Search and Rescue Station.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $143,000
BUDGET FOR FY2011: M: $0 **O**: $150,000 **T**: $150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $150,000
Funds will be used for caretaker activities to perform pre- and post- storm condition surveys for navigational safety and coordinate survey data with navigation stakeholders. Channel is used by a commercial fishing fleet and many recreation vessels and is important access route for the U.S Coast Guard for its search and rescue mission.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Knightville Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Knightville Dam is located along the Westfield River, about 27.5 miles above its junction with the Connecticut River and approximately 4 miles north of Huntington, Massachusetts. Knightville Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,200 feet long with a maximum height of 160 feet; an uncontrolled ogee weir spillway, 400 feet wide with a maximum discharge capacity of 83,000 cubic feet per second; and a 16-foot diameter outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 49,000 acre-feet to control runoff from its net drainage area of 162 square miles. Construction of the dam and appurtenant structures was initiated in August 1939 and completed in December 1941.

RECOVERY ACT ALLOCATIONS TO DATE: $569,050
CONFERENCE FOR FY 2010: **T**: $1,350,000
BUDGET FOR FY 2011: **M**: $119,000 **O**: $569,000 **T**: $688,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $579,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required inspection of one public use bridge located on project lands. Project has prevented an estimated $194 million in flood damages since placed in service in 1941.

Rec: $50,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 42,000 visitors each year.

Hydro: N/A

ES: $59,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,430 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lake Montauk Harbor, NY

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 2 March 1945. House Doc. No. 369. 76th Congress, 1st Session.

LOCATION AND DESCRIPTION: Montauk Harbor is an Atlantic Ocean inlet maintained at 14-feet on the south shore of Long Island at Montauk Point, N.Y. serving commercial fishing vessels and a U.S. Coast Guard Search and Rescue Station.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $100,000
BUDGET FOR FY2011: M: $0 **O:** $60,000 **T:** $60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $60,000
Funds will be used to monitor and communicate channel conditions to stakeholders at this very dynamic inlet.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Littleville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1958.

LOCATION AND DESCRIPTION: Littleville Lake is located along the Middle Branch of the Westfield River, about one mile above its confluence with the main stem of the Westfield River and two miles north of Huntington, Massachusetts. Littleville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,360 feet long and a maximum height of 164 feet; an earth-filled dike 935 feet in length; an uncontrolled ogee weir spillway, 400 feet wide with a maximum discharge capacity of 92,000 cubic feet per second; an 8-foot diameter horseshoe-shaped outlet conduit with 2 control gates for flood control; and a 4-foot diameter outlet conduit with 1 butterfly and 6 sluice gates for water supply. The reservoir provides a flood storage capacity of 32,400 acre-feet to control runoff from its net drainage area of 52.3 square miles. Construction of the dam and appurtenant structures was initiated in June 1962 and completed in September 1965.

RECOVERY ACT ALLOCATIONS TO DATE: $288,100
CONFERENCE FOR FY 2010: **T**: $845,000
BUDGET FOR FY 2011: **M**: $101,000 **O**: $581,000 **T**: $682,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $547,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $73.5 million in flood damages since placed in service in 1965.

Rec: $53,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 35,000 visitors each year.

Hydro: N/A

ES: $79,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,567 fee owned acres of land.

WS: $3,000 – Funding provides for routine operation and maintenance activities relating to water supply at the project.

OTHER INFORMATION: Littleville Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Long Island Intracoastal Waterway, NY

AUTHORIZATION: The Rivers and Harbors Act of August 26, 1937 authorized the Long Island Intracoastal Waterway Federal Navigation Project.

LOCATION AND DESCRIPTION: The 6 ft deep, 100 feet wide project traverses through 33.6 miles of inland waters through Great South Bay, Bellport Bay, Narrow Bay, Moriches Bay, Quantuck Bay and Shinnecock Bay. The federally improved channel connects local bays to the ocean through several coastal inlets. Three USCG Stations utilize this waterway for search and rescue missions. Many recreational boaters use this sheltered route along the Atlantic Ocean.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $100,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to monitor channel conditions, survey, publish controlling depth reports and coordinate with the U.S. Coast Guard.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Long Island Sound (LIS) Dredged Material Management Plan (DMMP), Connecticut and New York

AUTHORIZATION: Public laws authorizing existing federal navigation projects adjacent to LIS in Connecticut and New York. The Governors of these states, in a joint letter dated 8 February 2005, requested the Corps to develop a regional DMMP for the LIS Region.

LOCATION AND DESCRIPTION: LIS is located between the State of Connecticut and Long Island, New York. There are 55 existing Federal navigation projects that require periodic maintenance dredging in the LIS region, extending from Throgs Neck to Block Island Sound. Existing disposal sites include selected ocean and 404 sites in LIS, and in-water/upland sites including beach nourishment consistent with existing authorizations. The U.S. Environmental Protection Agency (EPA) Region I and II, as well as the New York District are cooperating in the preparation of the DMMP. Dredging and management of dredged material is vital to the economic and environmental well being of both states. However, basic differences exist between the states over the designation of open water disposal sites in LIS. The interests of all stakeholders are best served by development of a comprehensive plan to address future dredged material disposal needs and management protocols in a regional DMMP. The states in partnership with the Corps, EPA and other local, state and federal agencies will form a team committed to an open and inclusive process for developing the DMMP. This partnership will insure that all parties contribute resources and achieve consensus for alternative disposal options, including reducing sediment sources and contaminant loading, and developing beneficial reuses for dredged material, with the goal of reducing or eliminating the need for open water disposal.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,890,000
BUDGET FOR FY 2011: **M**: $0 **O**: $2,000,000 **T**: $2,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $2,000,000 – Funds will be used to continue preparation of the DMMP; including cultural inventory, air quality analysis, field investigations, and biological and chemical sampling and testing.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Lynnhaven Inlet, VA

AUTHORIZATION: Authorized by the River and Harbor Act of 23 October 1962, except the side channel into Long Creek which was approved by the Chief of Engineers in 1982 under authority of Section 107 of the River and Harbor Act of 1960.

LOCATION AND DESCRIPTION: Lynnhaven Inlet is located on the Chesapeake Bay within the City of Virginia Beach. The navigation project provides access to the Chesapeake Bay and Atlantic Ocean for commercial fishing vessels, pilot vessels, charter fishing boats, head boats, and a wide range of private recreational vessels. The project is used by the pilot boats for both the Virginia and Maryland Pilot stations based inside the inlet, to transport pilots from their dock to deep draft ships entering the Chesapeake Bay. The project requires annual maintenance of critical shoals and full maintenance dredging on intervals of about three years.

RECOVERY ACT ALLOCATIONS TO DATE: $1,069,000
CONFERENCE FOR FY 2010: $263,000
BUDGET FOR FY 2011: M: $300,000 **O:** $0 **T:** $300,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: Funds in the amount of $300,000 will be used to perform maintenance dredging of critical shoals that form in the entrance channel portion of the project. Lack of sufficient funding will result in unsafe navigation conditions, adversely affecting channel availability and safety for Maryland and Virginia ship pilots that serve both Norfolk and Baltimore Harbors.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: The dredged material is predominantly sand, and is used for beach nourishment at Ocean Park and Cape Henry Beaches. The City has fulfilled all requirements of the project under the cooperation agreement, including the provision of adequate dredged material facilities.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mansfield Hollow Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1941.

LOCATION AND DESCRIPTION: Mansfield Hollow Lake is located along the Natchaug River, about 5.3 miles upstream from its confluence with the Willimantic River. The project is located in the Towns of Windham and Chaplin, Connecticut. Mansfield Hollow Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 14,050 feet long and a maximum height of 68 feet; 6 earth-filled dikes with a total length of 2,656 feet and a maximum height of 53 feet; an uncontrolled ogee weir spillway, 690 feet wide with a maximum discharge capacity of 106,600 cubic feet per second; and 5 rectangular outlet conduits with 26 control gates. The reservoir provides a flood storage capacity of 52,000 acre-feet to control runoff from its net drainage area of 159 square miles. Construction of the dam and appurtenant structures was initiated in 1949 and completed in May 1952.

RECOVERY ACT ALLOCATIONS TO DATE: $650,400
CONFERENCE FOR FY 2010: **T**: $818,000
BUDGET FOR FY 2011: **M**: $222,000 **O**: $477,000 T: $699,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $585,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $86.9 million in flood damages since placed in service in 1952.

Rec: $68,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 294,000 visitors each year.

Hydro: N/A

ES: $46,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 2,470 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Mansfield Hollow Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in 2005. The principle issue from the dam is seepage. The rating of II is defined as Urgent (Unsafe or Potentially Unsafe). Dam Safety Construction funds are currently being used to evaluate the seepage problem at the Dam. Dikes A and B at Mansfield Hollow Dam were assigned DSAC ratings of III in November 2009. The principle issue for the dikes is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mattituck Harbor, NY

AUTHORIZATION: Rivers and Harbors Act of 1896 and subsequently modified in 1935 and 1964.

LOCATION AND DESCRIPTION: The existing federal navigation project provides for a channel, 7 ft deep, from the Long Island Sound to the Village of Mattituck in the Town of Southold, 100 ft wide at the entrance and 80 ft wide thereafter. It is a shallow draft mainly recreational channel.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: **T:** $60,000
BUDGET FOR FY2011: **M**: $60,000 **O**: $0 **T**: $60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $60,000
Funds will be used for caretaker activities to monitor channel conditions and re-initiate coordination with stakeholders. Erosion east of the inlet and shoaling to the west of the jetties will be monitored.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mispillion River, Sussex County, Delaware

AUTHORIZATION: HD 56-102 in 1907 and modified as HD 74-83 in R&H Act HD 678, 62nd Cong, 2nd Session (1919) and modified by R&H Com Doc. 83, 74th Congress, 2nd Session (1937) and modified by SD 229, 81st Congress, 2nd Session (1954).

LOCATION AND DESCRIPTION: The waterway rises in Kent and Sussex Counties, Delaware, flows northeasterly 13 miles along the boundary line between the two counties and empties into Delaware Bay about 16 miles above Cape Henlopen, Delaware.

RECOVERY ACT ALLOCATIONS TO DATE: $1,250,000

CONFERENCE FOR FY 2010: **T**: $ 29,700

BUDGET FOR FY 2011: **M**: $50,000 **O**: $0 **T**: $50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $50,000 will be used for project monitoring.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: Mispillion River has an authorized depth of 6 feet and requires maintenance dredging at a 4-year dredging cycle. The controlling depth prior to a scheduled dredging event usually averages 2.5' MLW. Failure to maintain the waterway on its scheduled maintenance cycle will result in the channel being unavailable to the primary users 50% of the time. The project was dredged in 2009 with Recovery Act funding. Controlling depth identified by a January 2008 channel exam survey was 3 feet. This waterway supports the only launch service that provides safe transport of personnel and supplies to tanker vessels anchored in Delaware Bay and the nearby Atlantic Ocean. Delays in service to the shipping industry are being reported. Several vessel groundings have occurred.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Moriches Inlet, NY

AUTHORIZATION: The Moriches Inlet Federal Navigation Project was authorized by the Rivers and Harbors Act of 1960 and the 1985 Supplemental Appropriation Act.

LOCATION AND DESCRIPTION: Moriches Inlet is a coastal inlet located on the South Shore of Long Island. The inlet connects the ocean with Moriches Bay. The existing federal navigation project includes an entrance channel, 10 feet deep (MLW) and 200 feet wide and an inner channel 6 feet deep, 100 feet wide connecting the Long Island Intracoastal Waterway to the Atlantic Ocean. Other components of the project are existing jetties and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: **T:** $100,000
BUDGET FOR FY2011: **M**: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker acitivities to monitor channel conditions, survey and publish controlling depth reports, and coordinate with U.S. Coast Guard and other navigation stakeholders. Funds will also be used to initiate engineering and design for the next cycle of maintenance dredging.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Murderkill River, Delaware

AUTHORIZATION: HD. 21, 52nd Congress, 1st Session (1892) and modified by HD 62-1058 (1912) and SD 71-106 (1930)

LOCATION AND DESCRIPTION: The waterway extends from Frederica, Delaware, flows northeasterly 9 miles through Kent county and empties into Delaware Bay about 25 miles above Cape Henlopen, Delaware.

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $ 29,700

BUDGET FOR FY 2011: **M**: $50,000 **O**: $0 **T**: $50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds in the amount of $50,000 will be used for project monitoring.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: Murderkill River has an authorized depth of 7 feet and is maintained on a 2-year dredging cycle. Project depths typically average 3.0' MLW prior to the start of a scheduled dredging event. Failure to maintain this waterway every two years will result in the channel being unavailable to the primary users 60% of the time. The local commercial fleet operates out of a small number of marinas and docking facilities located in the heart of the Bowers Beach community. Approximately 10 commercial fishing and crabbing vessels are based at Murderkill River. During peak seasons there are additional commercial vessels operating out of the inlet, peaking at more than 100 according to estimates by the Captain's Association.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mystic River, Connecticut

AUTHORIZATION: River and Harbor Acts of 1890, 1912, 1913, 1919 and 1945. A portion of the channel was de-authorized in 1986.

LOCATION AND DESCRIPTION: The Mystic River project is located in the towns of Groton and Stonington in southeastern Connecticut, about 11 miles east of New London, Connecticut. The project consists of a 15-foot channel extending from Fishers Island Sound to the highway bridge at Mystic, then a 12-foot channel extending to about 700 feet above the Marine Historical Association wharf, a 9-foot anchorage north of Mason Island, and a 9-foot turning basin north of the railroad bridge. The project has not been maintained since constructed in 1957.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $238,000
BUDGET FOR F Y2011: M: $0 **O**: $160,000 T: $160,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $160,000 – Funds will be used to prepare plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Primarily commercial charter fishing and tour vessels as well as recreational vessels use the project. The project is important to the Mystic Seaport and Aquarium. Shoaling within the channel is impacting navigation during lower stages of the tide.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Nanticoke River Including Northwest Fork

AUTHORIZATION: River and Harbor Act of June 3, 1896, Modified June 25, 1910, March 2, 1945.

LOCATION AND DESCRIPTION: Sussex County, DE, and Dorchester/Wicomico Counties, MD. The project provides for a channel 12 feet deep and 100 feet wide from Tangier Sound to the highway bridge at Seaford, DE, with a turning basin at the upper end and a slight widening of the channel between the bridges in the harbor at Seaford to a depth of 9 feet. The Northwest Fork channel is 6 feet deep and 60 feet wide from Upper Browns Wharf to the southern boundary of the town of Federalsburg, with a turning basin at the upper end.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $0
BUDGET FOR FY2011: **M**: $160,000 **O**: $0 T: $160,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $160, 000 - Funding will provide for engineering & design for future maintenance dredging.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Michael N. Castle (DE-At-Large), Senators Benjamin L. Cardin (MD), Barbara A. Mikulski (MD), Thomas R. Carper (DE), Edward E. Kaufman (DE)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Narrows of Lake Champlain, NY & VT

AUTHORIZATION: Adopted 1917

LOCATION AND DESCRIPTION: The Narrows of Lake Champlain navigation project extends from the northern terminus of the New York State Champlain Barge Canal at Lock 12 in Whitehall, NY northward approximately 13.5 miles to Benson Landing, VT. The project provides for a channel 12 ft. deep, approximately 13.5 miles in length and generally 200 ft. wide from Whitehall, NY to Benson Landing, VT. The existing project is considered 77% complete, with a channel 12 ft. deep at LLL and minimum width of 150 ft. having been excavated throughout the entire length of improvement, except in the vicinity of the Elbow (Putts Rock and Putts Leap) where the width is 110 ft. and fender booms were installed to protect vessels from rock outcrops. The uncompleted work is inactive.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $85,000
BUDGET FOR FY2011: M: $85,000 **O:** $0 **T:** $85,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $85,000 -
Funds will be used to perfom maintenance to fender booms, perform Project Condition Surveys and remove hazards to navigation from the project channel.
Funds will also be used to initiate environmental and engineering and design activities associated with maintenance dredging of the project channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Annual maintenance of the channel and fender booms is required to keep channel safe in the areas where the project was only constructed to 55% of its authorized width.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Bedford Hurricane Barrier, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1958.

LOCATION AND DESCRIPTION: The New Bedford Hurricane Barrier is located in Buzzards Bay in southeastern Massachusetts, along the north shore of Clark Cove and at the mouth of New Bedford Harbor. The project is located in the Cities of New Bedford and Fairhaven, Massachusetts. The project consists of an earth-filled dike, which extends 4,500 feet across New Bedford and Fairhaven Harbor in the vicinity of Palmer Island, with a 150-foot wide gate opening to accommodate navigation. The project also includes an earth-filled dike extension, 3,600 feet long, which protects the western waterfront, as well as 5,800 feet of earth dike to protect Clark Cove and 3,100 feet of earth dike to protect Fairhaven. Project construction was completed in January 1966. The project is operated and maintained by the City of New Bedford, with the exception of the navigation gate, which is operated and maintained by the Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: $1,789,950
CONFERENCE FOR FY 2010: T: $588,000
BUDGET FOR FY 2011: **M**: $931,000 **O**: $319,000 **T**: $1,250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $1,250,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the gates and protect life and property in downtown New Bedford and Fairhaven during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Also includes required five year cycle Periodic Inspection of the project and dewatering of the project ($800,000) required for making repairs to project navigation gates. Project has prevented an estimated $20.6 million in flood damages since placed in service in 1966.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Haven Harbor, Connecticut

AUTHORIZATION: Authorized by the Rivers and Harbors Acts of 1882, 1899, 1910, 1912, 1930, 1935, 1945, 1946, 1949, and 1955.

LOCATION AND DESCRIPTION: New Haven Harbor is located on the north shore of Long Island Sound, about 75 miles east of New York City. The project provides for a 35-foot main channel from Long Island Sound to Tomlinson Bridge; a 16-foot anchorage totaling 134 acres located along the western side of the main channel; a 15-foot anchorage totaling 29 acres located at the upper limit of the main channel, an 18-foot channel from the mouth of the Quinnipiac River upstream to a point about 1,000 feet above Ferry Street Bridge, thence, 16 feet deep to Grand Avenue; a 12-foot channel extending from the southwest corner of the 16-foot anchorage to the mouth of the West River and upstream to a point about 900 feet below the Route 95 Bridge; a 12-foot channel from the mouth of the Mill River upstream to the junction with two branch channels, which each extend further upstream to Grand Avenue; a pile and riprap dike about 2,400 feet long located along the main channel opposite Fort Hale Bar; and removal of certain obstructive rocks in Morris Cove. The project was complete in 1950 and was last maintained in February 2004.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: **M**: $0 **O**: $400,000 **T**: $400,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $400,000 – Funds will be used to perform sediment sampling and testing on material to be dredged.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: New Haven Harbor is the largest commercial seaport in Connecticut and having an adequate channel is critical to the State's economy.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance
PROJECT NAME: New Jersey Intracoastal Waterway, New Jersey

AUTHORIZATION: HD 76-133, as modified by PL 99-662

LOCATION AND DESCRIPTION: New Jersey Intracoastal Waterway navigation project extends 117 miles from the Manasquan River to Delaware Bay and is used by commercial as well as recreational vessels.

RECOVERY ACT ALLOCATIONS TO DATE: $10,527,800

CONFERENCE FOR FY 2010: **T**: $831,150

BUDGET FOR FY 2011: **M**: $250,000 **O**: $0 **T**: $250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $250,000 will be used to perform channel exams and to monitor the project.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This project is valuable to the nation because it provides a safe, reliable, and efficient navigation channel for the East Coast's largest and 5th most valuable commercial fishing fleet in the U.S. (Cape May/Wildwood) and nine U.S. Coast Guard Stations. The USCG must have a reliable channel to fulfill their Homeland Security requirements and conduct search and rescue operations. Other commercial users are head-boats and tour-boats that operate over various portions of the waterway. The DRBA operates a ferry service between Cape May, NJ and Lewes, DE. The ferries dock in the Cape May Canal. Almost 1.5 million passengers and $17.2 million in revenues are dependent on maintenance dredging to keep the four vessels operating. Discontinuance of this ferry service would result in vehicle detours of 183 miles. The South Jersey economy is heavily dependent on recreational and commercial fishing and tourism, and these industries rely on the maintained channels of the NJIWW. Maintenance dredging removes only the most critical shoals in the waterway.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York and New Jersey Channels, NY

AUTHORIZATION: Rivers and Harbors Act of 1922; then modified in 1933, 1935, 1950, 1965 and 1985

LOCATION AND DESCRIPTION: A channel 37 ft. deep, in rock and 35 ft. deep in soft material, 600 ft. wide through Lower New York Bay, Raritan Bay and Arthur Kill to a point 1,000 ft. north of Smith Creek, except in the vicinities of Seguine Point and Ward Point where the width is to be 800 ft.; thence 500 ft. wide, to a point 1,000ft. south of the location of former Buckwheat Island; thence 500 to 600 ft. wide passing north of Shooters Island and protected by a dike on its northern side to the junction of the channel into Newark Bay; under the Kill Van Kull Newark Bay Channel, New York and New Jersey authorized for deepening to 45 feet (47 feet in rock) and 800 ft. wide from the vicinity of Shooter Island and junction with Newark Bay through the Kill Van Kull to Constable Hook; thence 1,300 ft. wide from a point opposite the east end of Constable Hook to a point near the intersection along the New Jersey Pierhead line and thence 3,070 ft. wide through Kill Van Kull to Upper New York Bay with suitable easing of the bends and junctions. Length – about 31.0 miles; two anchorages 38 ft. deep to accommodate 5 vessels each, one in the vicinity of Sandy Hook and the other south of Perth Amboy; two secondary channels 30 ft. deep and 400 ft. wide, one south of Shooters Island and the other in Raritan Bay connecting with Raritan River, have been completed under previous projects and are maintained under the project.

Local cooperation. A local cooperation agreement was signed on 30 May 1986 with the Port Authority of New York and New Jersey for the Kill Van Kull, Newark Bay deepening project.

RECOVERY ACT ALLOCATIONS TO DATE: $3,250,000
CONFERENCE AMOUNT FOR FY2010: T: $3,896,000
BUDGET FOR FY2011: M: $6,150,000 **O**: $0 **T**: $6,150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $6,150,000
Funds will be use to provide for contolling depth reports and communication of channel data to stakholders. Funds will also be used for engineering and design of future dredging cycles as well as to award contracts to dredge the most critical shoals in the Arthur Kill Reach in FY11. This work would restore authorized depth to a portion of the project and reduces risk to deep draft vessels. Restoration of authorized channel depths provides greater potential navigational safety and precludes the need for shippers to increase vessel calls required to handle the cargo volume passing through the Port of NY and NJ.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

Division: North Atlantic District: New York Project Name: NY&NJ Channels, NY

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY

AUTHORIZATION: R&H Act in 1884, 1910, 1917, 1930, 1935, 1937, 1958, 1965, 1984

LOCATION AND DESCRIPTION: The Historic Area Remediation Site (HARS) is an ocean placement site approximately 16 square nautical miles in area, located in the Atlantic Ocean. This project also includes maintenance of the Main entrance channels and major anchorages in the Port of NY&NJ. Main Ship Channel, 30 ft. deep, 1,000 ft. wide, extending from Bayside Channel to deep water in the Lower Bay off West Bank Light.

RECOVERY ACT ALOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $3,478,000
BUDGET FOR FY2011: M: $3,796,000 **O**: $0 **T**: $3,796,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $3,796,000
Allows management and monitoring of the only long-term disposal site available for federal and private NY dredging projects, as well as technical studies neeeded for continued use of the site; sampling and testing for Red Hook Anchorage and Main Ship Channel.
Preliminary engineering and design and sampling/testing. Begin Preparation of plans and specificaitons for Red Hook Anchorage and Main Ship Channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY & NJ (Drift Removal)

AUTHORIZATION: R&H Act of 1915, modified in 1917, 1930, expanded in the WRDA '90.

LOCATION AND DESCRIPTION: New York & New Jersey Harbor-Estuary, including adjacent and tributary waters, and Long Island Sound. Drift collection vessels are used on a daily basis (one vessel works on each weekend day) to collect large floating drift that is a threat to the many deep-draft cargo carriers and petroleum tankers, as well as the growing number of high-speed passenger commuter ferries, cruise ships and recreational vessels. Consistent with WRDA 1990, floatables expanded project authorization; floatables especially those resulting from heavy rain events are simultaneously effectively and efficiently collected with the wooden drift and debris to protect the shoreline and beaches of the harbor-estuary.

RECOVERY ACT ALLOCATIONS TO DATE: 2,416,606
CONFERENCE AMOUNT FOR FY2010: $6,652,000
BUDGET FOR FY2011: **M**: $7,200,000 **O**: $0 **T**: $7,200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $7,200,000
Funds will be used to operate and manage the drift collection mission. Drift collection vessels are used on a daily basis (one vessel works on each weekend day) to collect large floating drift that is a threat to the many deep-draft cargo carriers and petroleum tankers, as well as the growing number of high-speed passenger commuter ferries, cruise ships and recreational vessels. Removal of over 500,000 cubic feet of drift and floatables results in the avoidance of approximately $25,000,000 of damages to the many cargo vessels, tankers, barges, passenger commuter ferries, cruise ships, and recreational vessels. Consistent with the authorization in WRDA '90, floatables are collected so they do not escape the harbor and pollute the New Jersey and New York bathing beaches.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New York Harbor, NY (Prevention of Obstructive Deposits)

AUTHORIZATION: Harbor Supervision Act (June 29, 1888) (33 U.S.C. 441-453)

LOCATION AND DESCRIPTION: New York & New Jersey Harbor-Estuary, including adjacent and tributary waters, and Long Island Sound. This continuing maintenance project under the enforcement and compliance authority provided to the District Engineer as the Supervisor of the Harbor (33 U.S.C. 451 b) involves the detection, investigation, and prevention of hazards and obstructions to navigation, including failing piers and bulkheads which are the key source of drift and debris. This project provides for investigating deteriorating structures so that the responsible owner can be found and made to eliminate the hazard, or potential hazard, to safe navigation before it becomes a Federal cost. The U.S. Attorney's Office of the Department of Justice brings cases in Federal Court when needed to have the responsible party correct and remove the hazard.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $993,000
BUDGET FOR FY2011: **M**: $0 **O**: $1,045,000 **T**: $1,045,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $1,045,000
Funds will be used to implement inspections, investigations and enforcement actions involving hazards and obstructions to navigation. This reduces overall Federal cost and avoids serious jeopardy to the large volume of commercial and recreational vessel traffic in New York and New Jersey Harbor and its associated channels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newark Bay, Hackensack and Passaic Rivers, NJ

AUTHORIZATION: Adopted 1922, modified 1943, 1954, 1964, 1966, 1975 and 1985.

LOCATION AND DESCRIPTION: Newark Bay is an estuary about 1.25 miles wide and 6 miles long extending southerly from the confluence of the Hackensack and Passaic Rivers to the New York and New Jersey channels. Newark Bay contains the Port Newark/Elizabeth Marine terminal operated by the Port Authority of NY & NJ. The subject of this fact sheet is the 40 and 45 foot depth projects within the Newark Bay, primarily the port channels. The channels authorized to a 40 Ft. depth of the federal project are Port Newark (PN) channel, the Port Newark Pierhead (PNPH) channel and a section of Main channel. The Elizabeth channel is authorized to a depth of 45 deep.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $143,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to monitor channel conditions, publish controlling depth reports and attend environmental matters coordination meetings with EPA and other stakeholders. Future work would be for maintenance dredging of critical shoals in Port Channels(40 ft. depth), NJ

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newtown Creek, NY

AUTHORIZATION: Approved by Rivers and Harbors Act 1919, modified in 1930 and 1937.

LOCATION AND DESCRIPTION: Newtown Creek, NY is located between Brooklyn and Queens, NY, east of the East River and extending approx. 2.5 miles to Maspeth Creek and English Kills. It is 23 feet deep and approx. 150 feet wide. A NYCDEP wastewater treatment plant is located along the river as well as many other businesses.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $143,000
BUDGET FOR FY2011: **M**: $0 **O**: $60,000 **T**: $60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $60,000
Funds will be used for caretaker activities to perform controlling depth report, coordinate with navigation and environmental stakeholders and to participate in interagency coordination meetings. Commerce on the river includes over 1,000,000 tons of freight, composed primarily of petroleum products, chemicals and alcohols, and a heavy volume of iron ore and scrap metal recycling. The provision of full channel dimensions would increase navigation safety for fuel barges now operating at high tides. Due to its contaminated nature and the challenges to the local sponsor to provide dredged material placement sites, the project has not been dredged in quite some time.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Norfolk Harbor, VA

AUTHORIZATION: Norfolk Harbor was authorized by the 1876 River and Harbor Act, and modified by numerous River and Harbor Acts through the 1986 WRDA. The Craney Island Dredged Material Management Area was authorized by the River and Harbor Act of 1946.

LOCATION AND DESCRIPTION: Norfolk Harbor includes the deep draft channels in the Elizabeth River, Hampton Roads, and the lower Chesapeake Bay. The Craney Island Dredged Material Management Area was constructed on 2,500 acres of river bottom in the James River adjacent to the city of Portsmouth, Virginia. Craney Island is the primary dredged material placement area for the construction and maintenance of navigation channels in the Hampton Roads port complex. Craney Island provides essential dredged material placement capacity for the Federal navigation channels, U.S. Navy facilities, Virginia Port Authority facilities, and various other commercial port facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $12,267,000
CONFERENCE FOR FY 2010: $10,780,000
BUDGET FOR FY 2011: **M**: $9,266,000 **O**: $500,000 **T**: $9,766,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $9,766,000 will provide for operations and maintenance of critical dike raising at the Craney Island Dredged Material Management Area (CIDMMA) and and the minimum safe level (bare bones level) of maintenance dredging for the Norfolk Harbor and Craney Island Reaches. Failure to fund critical dike raising will result in insufficient dredged material capacity for Federal, State, and commercial dredging projects. The barebones dredging amount will provide for only dredging critical shoaling in the outbound lane of Norfolk Harbor and Craney Island Reaches. Failure to maintain adequate channel depths will result in draft restrictions causing economic losses of national significance and impacts to the national security, the U.S. Navy, and commercial navigation.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: A portion of the cost to maintain the Craney Island Dredged Material Management Area is recovered by a system of toll charges for the use of the facility. A toll of $6.81 per cubic yard is collected to use the Craney Island Rehandling Basin, of which $1.38 is given to the Treasury. For direct placement of material, a toll of $1.38 per cubic yard is collected, all of which is given to the Treasury. Maintenance of Norfolk Harbor, VA includes each of the channel segments deepened to a 50-ft. project depth as a result of the WRDA 1986 authorization: Norfolk Harbor Channel, Channel to Newport News, Thimble Shoal Channel, and the Atlantic Ocean Channel outside the mouth of the Chesapeake Bay.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Hartland Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1938 and 1941.

LOCATION AND DESCRIPTION: North Hartland Lake is located along the Ottauquechee River, about 1.5 miles above its junction with Connecticut River, and one-mile northwest of North Hartland, Vermont. North Hartland Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth and rock-filled dam with rock slope protection, 1,640 feet long with a maximum height of 185 feet; an earth and rock-filled dike 2,110 feet long with a maximum height of 52 feet; an uncontrolled ogee weir spillway, 465 feet wide with a maximum discharge capacity of 160,900 cubic feet per second; a 14.25-foot diameter horseshoe shaped outlet conduit with 4 control gates through the dam: and a 36-inch diameter outlet conduit with a control gate through the dike. The reservoir provides a flood storage capacity of 74,150 acre-feet to control runoff from its net drainage area of 220 square miles. Construction of the dam and appurtenant structures was initiated in June 1958 and completed in June 1961.

RECOVERY ACT ALLOCATIONS TO DATE: $211,450
CONFERENCE FOR FY 2010: T: $734,000
BUDGET FOR FY 2011: **M**: $277,000 **O**: $442,000 **T**: $719,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $531,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $110 million in flood damages since placed in service in 1961.

Rec: $126,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. Also includes funds for the challenge cost share agreement for the visitor center. The project provides recreation opportunities to an average of 199,000 visitors each year.

Hydro: N/A

ES: $62,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also includes an inventory of the vegetative cover of the project lands. The project consists of 1,464 fee owned acres of land.

WS: N/A

OTHER INFORMATION: North Hartland Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in September 2009. The principle issues are seepage and seismic. T

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: North Springfield Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1938 and 1941.

LOCATION AND DESCRIPTION: North Springfield Lake is located in the Town of Springfield, Vermont, along the Black River, about 8.7 miles above its junction with the Connecticut River. North Springfield Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of two earth and rock-filled dams with rock slope protection. The Main Dam is 2,940 feet long with a maximum height of 120 feet, and the North Branch Dam is 900 feet long with a maximum height of 75 feet. The Main Dam has an uncontrolled side channel spillway with an ogee weir, 384 feet wide with a maximum discharge capacity of 117,200 cubic feet per second, and a 12.75-foot diameter horseshoe shaped outlet conduit with 3 control gates. The North Branch Dam has an uncontrolled broad crested spillway weir, 200 feet wide with a maximum discharge capacity of 1,600 cubic feet per second, and an 8-inch diameter outlet conduit. The reservoir provides a flood storage capacity of 51,100 acre-feet to control runoff from its net drainage area of 158 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in November 1960.

RECOVERY ACT ALLOCATIONS TO DATE: $100,950
CONFERENCE FOR FY 2010: T: $812,000
BUDGET FOR FY 2011: **M**: $321,000 **O**: $517,000 **T**: $838,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $685,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $108 million in flood damages since placed in service in 1960.

Rec: $83,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 34,000 visitors each year.

Hydro: N/A

ES: $70,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of the project lands. The project consists of 1,361 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Northfield Brook Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: Northfield Brook Lake is located along Northfield Brook, about 1.3 miles upstream from its confluence with the Naugatuck River. The project is located in the Town of Thomaston, Connecticut. Northfield Brook Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 810 feet long and a maximum height of 118 feet; an uncontrolled ogee weir spillway, 72 feet wide with a maximum discharge capacity of 8,800 cubic feet per second; and a 3-foot diameter outlet conduit with a control gate. The reservoir provides a flood storage capacity of 2,430 acre-feet to control runoff from its net drainage area of 5.7 square miles. Construction of the dam and appurtenant structures was initiated in May 1963 and completed in October 1965. Construction of recreational facilities were initiated in November 1966 and completed in August 1967.

RECOVERY ACT ALLOCATIONS TO DATE: $79,450
CONFERENCE FOR FY 2010: **T**: $580,000
BUDGET FOR FY 2011: **M**: $74,000 **O**: $485,000 **T**: $559,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $402,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required five year cycle Periodic Inspection of the project and required inspection of two public use bridges located on project lands. Project has prevented an estimated $42.1 million in flood damages since placed in service in 1965.

Rec: $114,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 61,000 visitors each year.

Hydro: N/A

ES: $43,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 208 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance
PROJECT NAME: Ocean City Harbor and Inlet and Sinepuxent Bay, MD

AUTHORIZATION: Rivers and Harbors, August 30, 1935 in accordance with Rivers and Harbor Committee Document 38, 72nd Congress, 1st Session. Modified by Rivers and Harbors Act August 30, 1935, Document 60, 74th Congress, 1st Session. House Document 444, 82nd Congress. 2nd Session, September 3, 1945.

LOCATION AND DESCRIPTION The Ocean City Project Federal navigation project is located in Worcester County, Maryland. The project provides for an inlet channel 10 feet deep and 200 feet wide from that depth in the Atlantic Ocean through the inlet to the channel to the channel to the Isle of Wight Bay, protected on the south side by a stone jetty with a top elevation of 8.8 feet above mean low water and to width 18 feet, and on the north side by a stone jetty with a top elevation of 9 feet above mean low water and top width of generally 20 feet; a channel 150 feet wide and 6 feet deep from the inlet channel to the project harbor, with widths of 150 to 100 feet to the head of the harbor with two turning basins of the same depth; a channel 6 feet deep and 150 feet wide from the inlet to Green Point, and thence 100 feet wide in Chincoteaque Bay; and a channel 6 feet deep and 125 feet wide from the inlet channel to a point opposite North Eighth Street in Ocean City, then 75 feet wide into the Isle of Wight Bay

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $656,000
BUDGET FOR FY2011: **M**: $1,400,000 **O**: $0 T: $1,400,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $1,400,000 - Funding will provide maintenance dredging of West Ocean City Harbor and inlet.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Frank Kratovil Jr. (MD-1), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Otter Brook Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Act of 1954.

LOCATION AND DESCRIPTION: Otter Brook Lake is located along Otter Brook, about 4.9 miles upstream from its junction with the Ashuelot River. The project is located in the Town of Keene, New Hampshire. Otter Brook Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,288 feet long with a maximum height of 133 feet; an uncontrolled ogee weir spillway, 145 feet wide with a maximum discharge capacity of 40,000 cubic feet per second; and a 6-foot diameter horseshoe-shaped outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 18,320 acre-feet to control runoff from its net drainage area of 47.2 square miles. Construction of the dam and appurtenant structures was initiated in September 1956 and completed in August 1958. Major rehabilitation of the dam involving construction of a new concrete spillway weir using mechanical fuseplugs was completed in June 2006.

RECOVERY ACT ALLOCATIONS TO DATE: $991,200
CONFERENCE FOR FY 2010: **T**: $526,000
BUDGET FOR FY 2011: **M**: $299,000 **O**: $432,000 T: $730,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $575,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required inspection of two public use bridges located on project lands. Project has prevented an estimated $38.6 million in flood damages since placed in service in 1958.

Rec: $104,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 55,000 visitors each year.

Hydro: N/A

ES: $51,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of the project lands. The project consists of 458 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Passaic River Flood Warning Systems, NJ

AUTHORIZATION: The Water Resources Development Act of 1976 authorized the study of the Passaic flooding problem. The Water Resources Development Act of 1990 authorized the recurring operational and maintenance costs for the computerized flood warning system.

LOCATION AND DESCRIPTION: Passaic Basin, Northern New Jersey. The Basin has a history of significant chronic flooding. The system provides critical rain and stream gage information for weather forecasts and warnings; immediate information access by first responders for mitigation action; a network to receive instantaneous watches/warnings; and a forum of quarterly meetings for multi-agency coordination. The system integrates information flow and flood mitigation activities for multi-level response from federal, state, and local agencies, including five New Jersey counties and 12 high-risk municipalities.

RECOVERY ACT ALLOCATIONS TO DATE: $415,964
CONFERENCE AMOUNT FOR FY2010: T: $526,000
BUDGET FOR FY2011: M: $0 **O**: $570,000 **T**: $570,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: N/A

FRM: $570,000
Funds will be used to maintain existing stream and rain gauges to ensure they are fully functional and reporting accurate data to local Offices. Funds will also be used to repair or replace damaged equipment as required and to provide user training and coordination. The efforts are important to provide accurate and timely reports and affect intergovernmental coordination and emergency planning. The net result is a reduced threat to life and property in the event of serious flooding.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pig Island Gut, Beals, Maine

AUTHORIZATION: Authorized by the Chief of Engineers, 10 July 1964, under Continuing Authority of Section 107 of the River & Harbor Act of 1960, as amended.

LOCATION AND DESCRIPTION: Pig Island Gut is located in Beals, Maine at the southeastern end of Moosabec Reach and about 30 miles northeast of Bar Harbor. The project consists of a 6-foot channel 60 feet wide from Alley Bay to Eastern Bay through Pig Island Gut and a 6-foot anchorage area of about 5.5 acres within the Gut. The project was built in 1965 and has never been maintained. Proposed maintenance dredging involves removal of about 25,000 cubic yards and transporting the material 3 miles to a proposed deep-water ocean disposal site east of Mark's Island, Maine. The harbor supports 135 vessels and provides anchorage area for a number of commercial fishing vessels. The harbor provides a significant amount of the employment for the small rural town of Beals.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: **M**: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $100,000 – Funds will be used to secure environmental approvals, complete an Environmental Assessment and prepare plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Port Chester Harbor, NY

AUTHORIZATION: Approved by Rivers and Harbors Act 1910. Anchorage approved by Rivers and Harbors Act 1930, Public Law 420. 71st Congress. H.R. 11781

LOCATION AND DESCRIPTION: Port Chester Harbor, NY is located between the States of New York and Connecticut. It consists of a tidal portion of the Byram River and a bay at its mouth. The channel is approx. 1.7 miles, with the deepest portion (-12 ft MLW) at the mouth and shallowest portion (-3 ft MLW) at the upstream limit of the project near Mill St. Bridge.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $60,000
BUDGET FOR FY2011: M: $0 **O**: $60,000 **T**: $60,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $60,000
Funds will be used to provide caretaker activities to monitor channel conditions and perform controlling depth report and to coordinate with US Coast Guard. Funds will also be used to initiate plans and specifications for future maintenance dredging of most critical shoals to restore navigational safety. Commerce on the river includes 71,000 tons of petroleum products; and marine construction and repair facilities, lobster and seafood wharfs, and sand/concrete industry averaging 125,000 tons annually.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Potomac and Anacostia Rivers, D.C. (Drift Removal)

AUTHORIZATION: River and Harbor Act of 27 October 1965, 89th Congress.

LOCATION AND DESCRIPTION: System Code 0207- Potomac and Anacostia Removal of Drift Project is located within Washington, DC, Prince Georges County, Maryland and Fairfax County, Virginia. The collection and removal effort is a year round effort and consists of performing routine patrols throughout the harbor and also responding to emergency calls from Coast Guard and Navy activities, state and local government activities, and commercial business concerns for the removal of drift material deemed hazardous to the safe navigation of both commercial and recreational marine vessels.

RECOVERY ACT ALLOCATIONS TO DATE: $83,005
CONFERENCE AMOUNT FOR FY2010: $765,000
BUDGET FOR FY2011: **M**: $845,000 **O**: $0 **T**: $845,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $845,000 - Funding will provide drift and debris collection and removal of the project.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0- NA

OTHER INFORMATION: Congressional Interest: Congressmen James P. Moran (VA-8), Frank R. Wolf (VA-10), Donna F. Edwards (MD-4), Chris Van Hollen (MD-8), Delegate Eleanor Holmes Norton (DC), Senators Barbara A. Mikulski (MD), Benjamin L. Cardin (MD), Jim Webb (VA), Mark Warner (VA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Prevention of Obstructive and Injurious Deposits, Hampton Roads, VA

AUTHORIZATION: The Act of June 29, 1888, amended August 28, 1958, provides for preservation of the tidal waters of Hampton Roads and adjacent or tributary waters.

LOCATION AND DESCRIPTION: The project provides for detection and prevention of the illegal deposit into navigable waters of waste, oil, sludge, refuse, and other types of debris from vessels and shore installations. The Corps of Engineers Supervisor of the Harbor, in coordination with U. S. Coast Guard, Department of Justice, and other Federal and State agencies, is designated to conduct the program. The jurisdiction of the Supervisor of the Harbor of Hampton Roads includes Hampton Roads and reaches of Chesapeake Bay, the Atlantic Ocean located in Virginia and tidal portion of their tributaries, including the James River, York River, Rappahannock River, and south shore of the Potomac River.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: $50,000
BUDGET FOR FY 2011: **M**: $0 **O**: $50,000 **T**: $50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $50,000 will provide the ability to perform safety patrols to ensure potential offenders are not disposing of waste and materials in waterways used by military, commercial, and recreational vessels. Failure to fund this project will result in degradation of the navigable waters, the potential for navigation accidents, and possible sinking of military, commercial and pleasure vessels.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: In prior fiscal years, the elimination of services allowed the potential for unrestricted deposits in all tidal waterways of Virginia. In one year alone, over 750 phone calls were received for action to which the Corps could not respond. The budgeted amount in FY 2011 will enable the program to be resumed and continue. This project contributes directly to national commerce and economic benefits by providing an efficient, cost-effective method of ensuring refuse and other injurious materials do not get into navigable waters of Hampton Roads and contributes to the safe passage of over 100,000 vessel trips. The prevention of waste and refuse deposits into the waterways also reduces water pollution and consequent impacts to marine habitat and wetlands in the Chesapeake Bay and its tributaries.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Prompton Lake, Pennsylvania

AUTHORIZATION: This project was authorized via HD 80-113, 80th Congress (1948), modified by HD 87-522 (1962)

LOCATION AND DESCRIPTION: The project is located on Lackawaxen River within the Borough limits of Prompton, PA., four miles upstream from Honesdale, PA; approximately 30 miles above confluence of the Lackawaxen and Delaware Rivers. The project consists of a flood control earth-fill dam 140 feet high and 1,230 feet long on the crest. The reservoir has a capacity of 20,300 acre-feet for flood control, 28,000 acre feet of excess storage with a conservation pool of 3400 acre-feet capacity. The project also includes recreational public use facilities maintained by the Corps include access roads, parking lot, sanitary facilities, boat launch, a hiking/nature trail and provision for boating (10 H.P. limit) and fishing.

RECOVERY ACT ALLOCATIONS TO DATE: $364,300

CONFERENCE FOR FY 2010: T: $407,880

BUDGET FOR FY 2011: M: $25,000 **O**: $481,000 **T**: $506,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: N/A

FRM: $475,000 will be used for routine operations & maintenance which includes the operation buildings, the dam and related structures, grounds & equipment, management of public-use areas such as access roads, parking lots. Other specific work includes real estate (NAB), continuing evaluation gathering &, dam safety, water-control and water-quality analysis.

REC: $0 N/A

HYDRO: $0 N/A.

ES: $31,000 will be used to accomplish basic and essential stewardship functions at the project. This includes the maintenance and monitoring of sustainable land, improving fee owned land from degraded to transitioning status, prevention of the introduction of invasive plant species to numerous tracts of land, and continuation of good stewardship practices.

WS: $0 N/A.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River, NJ

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1919 and subsequently modified by the Rivers and Harbors Acts of 1930, 1937 and 1940.

LOCATION AND DESCRIPTION: Raritan River is located about 24 miles by water south of the Battery, New York City. It joins both Lower Raritan Bay and New York & New Jersey Channels. The existing navigation project provides for a main channel and 25 feet depth. The length is about 13.8 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: **T:** $292,000
BUDGET FOR FY2011: **M**: $0 **O**: $80,000 **T**: $80,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $80,000
Funds will be used for caretaker activities to prepare a Controlling Depth Report and condition and to communicate information with stakeholders. Future work would be to complete maintenance dredging to authorized depth throughout channel Mile 0.0-4.0. The channel provides important access for use by petroleum deliveries of over 11 million barrels of petroleum product.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raritan River to Arthur Kill Cut-Off, NJ

AUTHORIZATION: The Federal navigation project for Raritan River to Arthur Kill Cut-Off Channel, New Jersey was adopted in 1935.

LOCATION AND DESCRIPTION: Project is located in Raritan Bay at the southern tip of Staten Island, NY and Perth Amboy, NJ. The project is located in a busy deep draft commercial harbor and port. The project connects the Raritan River channel with the southern end of the NY&NJ channel. The project provides for a channel 20 feet deep and 800 feet wide approximately 1 mile in length.

RECOVERY ACT ALLOCATIONS T DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $190,000
BUDGET FOR FY2011: M: $100,000 **O**: $0 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used to begin engineering and design for the next cycle of maintenance dredging including testing material for acceptability at ocean disposal site.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Raystown Lake, PA

AUTHORIZATION: Flood Control Act of 23 October 1962 (PL 87-874) and described in House Document 565, 87th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Raystown Lake is located on the Raystown Branch about 5.5 miles upstream from its confluence with the Juniata River. The dam is an earth and rockfill structure with a maximum height of 225 feet and a top length of 1,700 feet. There is a two-bay gated spillway with two tainter gates, 45 feet wide by 45 feet high, to control flood flows. The overflow section is cut through rock at elevation 812 m.s.l., and has crest length of 1,630 feet in the spur of Terrace Mountain. At the overflow section crest, the reservoir will extend 34 miles to the vicinity of Saxton and inundate 10,800 acres. The recreation lake is 27 miles long and inundates 8,300 acres. The project encompasses 29,700 total acres. The flood control storage available above the elevation of the recreation lake is 248,000 acre-feet. Continental Cooperative Services, of Harrisburg, Pennsylvania constructed a 20 megawatt conventional hydropower facility which uses scheduled water releases from Raystown Dam to produce an average annual output of 77 million kilowatt hours, or enough to supply approximately 7,700 typical rural homes. The U.S. Army Corps of Engineers operates and maintains 12 public access areas. Additionally, there are four recreation real estate concession leases.

RECOVERY ACT ALLOCATIONS TO DATE: $3,613,059
CONFERENCE AMOUNT FOR FY2010: $3,656,000
BUDGET FOR FY2011: M: $1,223,000 **O**: $2,529,000 **T**: $3,752,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $1,063,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $2,098,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $591,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman William Shuster (PA-9), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rudee Inlet, VA

AUTHORIZATION: River and Harbor Act of 14 July 1960, Section 107, modified under Section 354 of the 1996 WRDA.

LOCATION AND DESCRIPTION: Rudee Inlet is located in Virginia Beach, Virginia and provides access to the Atlantic Ocean. The project provides navigation and a critical harbor of refuge for commercial fishing boats, charter sport fishing vessels, research vessels from Virginia Marine Science Museum, U.S. Navy craft, several tour boats, and various transient vessels en route up and down the Atlantic coast. Several maintenance dredging events are required per year to ensure the entrance channel portion of the project remains open for safe navigation. Dredged material is placed on the oceanfront beach and serves as a major source of nourishment material.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: T: $756,000
BUDGET FOR FY 2011: M: $520,000 **O**: $0 **T**: $520,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: Funds in the amount of $520,000 will be used to perform critical maintenance dredging with the U.S. Army Corps of Engineers Dredge CURRITUCK. A lack of sufficient funds would result in unsafe navigation, adversely affecting the commercial fishing industry, Naval and research vessel operations, transient vessels and related commercial vessel operations.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: Rudee Inlet is located in a highly seasonal community and is also a Critical Harbor of Refuge. At the City's request, every effort is made to avoid maintenance dredging during the peak tourist season, June through September. The City of Virginia Beach as local sponsor pays a cost share percentage of 28% which represents the recreational benefits of the project.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Saco River, Maine

AUTHORIZATION: Adopted in 1827 and supplemented by enactments in 1866, 1890, 1910, 1925 and 1935. The project was also modified on 14 November 1967, and 8 March 1982, under Section 107 of the Rivers and Harbors Act of 1960, as amended.

LOCATION AND DESCRIPTION: The Saco River originates in the White Mountain region of central Maine and flows in a southerly direction about 105 miles to the Atlantic Ocean. The Federal navigation project is located at the mouth of the Saco River in southern Maine. The project consists of an 8-foot channel, 100 to 200 feet wide, extending from the ocean about 6 miles upstream to the head of navigation at Saco and Biddeford, Maine. The project includes an 8-foot basin at the head of the channel and three 6-foot anchorages in the lower river, one protected by steel pile icebreakers for winter use. The project also provides for a north breakwater and south jetty at the mouth of the river and several small riprap jetties and dikes within the river. The project was completed in 1983 and last maintained in 1994. Approximately 80,000 cubic yards of material is required to restore the Federal navigation project to its authorized dimensions. Dredge material will be disposed of as beach nourishment on the adjacent Camp Ellis Beach in Saco, Maine

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: **M**: $0 **O**: $140,000 **T**: $140,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $140,000 – Funds will be used to secure environmental approvals, complete an Environmental Assessment and initiate preparation of plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The harbor serves a number of public and private marine facilities and supports a small fishing fleet. Shoaling in the upper river is limiting the amount of useable moorings available.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sandy Hook Bay at Leonardo, NJ

AUTHORIZATION: House Document Doc. 108, 81st Congress, 1st Session. Authorized and approved by Rivers and Harbors Act March 2, 1945 and May 17, 1950.

LOCATION AND DESCRIPTION: Sandy Hook Bay at Leonardo is located in Sandy Hook Bay, NY and NJ Harbor. Shoals of various dimensions have formed in sections of the channel, which was last dredged in 1991. The channel is approximately 2,500 feet long, and provides an entrance from Sandy Hook Bay to the NJ State Marina at Leonardo.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $0
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to prepare a Controlling Depth Report and condition and to communicate information with stakeholders including the State marine police which operate out of Leonardo. Monitoring of conditions and communication of risk is essential to stewardship of the waterway used by petroleum deliveries, commercial fishermen, and recreational users.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Scarborough River, Maine

AUTHORIZATION: Rivers and Harbors Act of 1950.

LOCATION AND DESCRIPTION: The Scarborough River Federal Navigation Project (FNP) is located in the Town of Scarborough, about 8 miles south of Portland, Maine. The project consists of an outer channel 6 feet deep and 200 feet wide, an inner channel 6 feet deep and 100 feet wide, a 6 foot deep anchorage of 9.3 acres, and a stone jetty approximately 800 feet long on the west side of the entrance channel. The project was completed in 1962 and last dredged in 2005. Shoaling has reduced project depths to as little as 1 foot in some areas, significantly restricting access to the harbor. Maintenance dredging of approximately 100,000 cubic yards of material is required to restore the FNP to its authorized dimensions. Dredge material will be disposed of either as beach nourishment on nearby Western Beach or near shore off Pine Point Beach. The project supports many recreational vessels and a sizable commercial fishing fleet. Landings include both finfish and shellfish.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $0
BUDGET FOR FY 2011: M: $0 **O**: $160,000 **T**: $160,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $160,000 - Funds will be used to secure environmental approvals, complete an Environmental Assessment and prepare plans and specifications for maintenance dredging of the Federal navigation project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Dredging operations would be restricted to an allowable window of September through February to protect fisheries resources in proximity to the project as well as Piping Plover habitat on Western Beach. Dredging of the Scarborough River is contingent upon obtaining all necessary approvals from State resource agencies.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Schuylkill River, Pennsylvania

AUTHORIZATION: This project was authorized 8 August 1917 (HD 1270, 64th Cong., 1st Session) and modified 3 July 1930 (R&H Com Doc 40, 71st Cong., 2nd Session) and 24 July 1946 (HD 699, 79th Cong., 2nd Session). An additional modification was authorized on 25 September 1996 of the Congressional Record H11176 Sec. 344.

LOCATION AND DESCRIPTION: The project extends from the confluence of the Delaware River and Schuylkill River upstream, a length of 6.5 miles to the University Avenue Bridge and the Fairmount pool between Fairmount Dam and the Columbia Bridge. A 33', 26' and 22' draft navigation channels

RECOVERY ACT ALLOCATIONS TO DATE: $0

CONFERENCE FOR FY 2010: **T**: $188,100

BUDGET FOR FY 2011: **M**: $0 **O**: $250,000 **T**: $250,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds of $250,000 will be used for channel surveys, and to monitor the project

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A.

OTHER INFORMATION: This is a deep draft project, which provides safe navigation for large vessels that provide access to a very large petrochemical complex for distribution throughout the United States. The port provides employment in the area. Maintenance activities are needed to preclude hazardous navigating conditions, national security issues, commercial/recreational vessel damage, delays in service to the shipping industry, and economic hardships to local residents.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shark River, NJ

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 1945

LOCATION AND DESCRIPTION: Shark River Federal project is located between Avon-by-the-Sea and Belmar, New Jersey. Shark River Federal project is a 1.7 mile coastal inlet and back-bay channel, comprised of a channel 18 feet deep below Mean Low Water (MLW) and 150 feet wide across the bar at the ocean inlet; then decreasing in depth to 12 feet below MLW and width of 100 feet between the ocean and the bay and then 8 ft deep below MLW to the upper limits of the Bay to the Belmar Boat Basin.

RECOVERY ACT ALLOCATIONS TO DATE: $1,100,000
CONFERENCE AMOUNT FOR FY2010: T: $380,000
BUDGET FOR FY2011: M: $500,000 **O**: $0 **T**: $500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $500,000
Funds will be used to monitor channel conditions, publish controlling depth reports, and coordinate with the U.S. Coast Guard. Funds will also be used to remove Ocean bar and spot shoaling at entrance to inlet. Providing navigation access is important as the waterway services Shark River lobstering and commercial vessels, a large recreational fishing fleets and over 300 private craft. It is an extremely active inlet. Shoaling impedes access for US Coast Guard and recreation boaters to the municipal marinas.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shinnecock Inlet, NY

AUTHORIZATION: The Shinnecock Inlet - Federal Navigation Project is authorized by the Rivers and Harbors Act of 1960, in accordance with the recommendations contained in House Document No. 126, 86th Congress, 1st Session.

LOCATION AND DESCRIPTION: Shinnecock Inlet is a coastal inlet located on the South Shore of Long Island, in the Town of Southampton, NY. The existing federal navigation project includes an entrance channel, 10 ft deep (MLW) and 200 ft wide and an inner channel 6 ft deep, 100 ft wide connecting to the Long Island Intracoastal Waterway. It also includes a deposition basin 20 feet deep mean low water (MLW), 600 feet wide and 600 feet long and existing jetties and revetments.

RECOVERY ACT ALLOCATIONS TO DATE: $1,532,750
CONFERENCE AMOUNT FOR FY2010: T: $100,000
BUDGET FOR FY2011: M: $100,000 **O**: $0 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used to provide caretaker acitivities to complete interagency coordination for future maintenance dredging, publish controlling depth and coordinate with the U.S. Coast Guard. Significant commercial fishing, sea charter vessels, the U.S. Coast Guard search and rescue activities, as well as thousands of recreational users utilize this inlet.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shoal Harbor and Compton Creek, NJ

AUTHORIZATION: Authorized by the Rivers and Harbors Act of 3 September 1954, Public Law No. 780, 83rd Congress, Chapter 1264, H.R.9859.

LOCATION AND DESCRIPTION: Shoal Harbor and Compton Creek are located adjacent to Lower Raritan Bay in the vicinity of western Sandy Hook Bay. The existing navigation project provides for a main Shoal Harbor channel that begins at -12 feet mean low water (MLW), extending from deep water in Sandy Hook Bay. Then the channel becomes -8 feet below MLW, continuing inland for approximately 1,000. At this point, the Compton Creek portion of the project has not been constructed and is therefore inactive.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $80,000
BUDGET FOR FY2011: M: $0 **O**: $80,000 **T**: $80,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $80,000
Funds will be used for caretaker activities to publish survey data and respond to stakeholders including ferry businesses and fishermen. Funds will also be used to update environmental information as needed. The waterway is used by a large fishing fleet and ferry business of commuters to NY City.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Shrewsbury River, Main Channel, NJ

AUTHORIZATION: Adopted in 1919 and was subsequently modified by the Rivers and Harbors Act of 1935, 1950 and 1965.

LOCATION AND DESCRIPTION: Shrewsbury River is a channel 12 feet deep and 300 feet wide in NY and NJ Harbor. It is a large tidal basin in eastern part of New Jersey, the outlet being at the southeast end of Sandy Hook, NY and NJ Harbor.

RECOVERY ACT ALLOCATIONS TO DATE: $3,564,594
CONFERENCE AMOUNT FOR FY2010: T: $0
BUDGET FOR FY2011: M: $0 **O**: $80,000 **T**: $80,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $80,000
Funds will be used for caretaker activities to monitor conditions and coordinate channel survey data with navigation stakeholders on this highly used waterway.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Southern New York Flood Control Projects, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, modified by Acts of 28 June 1938, 18 August 1941, 22 December 1944, 17 May 1950, and 3 July 1958, House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- These 10 projects are located on a number of tributaries of the North Branch of the Susquehanna River in Oxford, Avoca, Binghamton, Canisteo, Corning, Elmira, Hornell, Lisle, Whitney Point Village and Addison, New York. The Southern New York Local Flood Protection Projects provide for a variety of Federally-constructed channels, levees, floodwalls, check dams and other drainage structures and flood protection treatments. The Federal Government retains responsibility for maintenance of at least some portions of these projects based on the authorizing language. Local interests are responsible for the remaining maintenance.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $767,000
BUDGET FOR FY2011: M: $586,000 **O**: $339,000 **T**: $925,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $925,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressmen Michael A. Arcuri (NY-24), Maurice D. Hinchey (NY-22), Eric J. Massa (NY-29), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stamford Hurricane Barrier, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: The Stamford Hurricane Barrier is located along the East and West Branches of Stamford Harbor and Westcott Cove in the City of Stamford, Connecticut. The project provides for the construction of the East Branch Barrier, which consists of 2,850 feet of earth-filled dike with rock slope protection, a 90-foot wide gated opening for navigation and a 45,000 gallon per minute pump station to handle interior drainage. The project includes protection along the West Branch of Stamford Harbor, consisting of 1,349 feet of concrete wall, 160 feet of sheet pile bulkhead wall, 2,950 feet of earth-filled dike and a 229,500 gallon per minute pump station. The project also includes protection along Westcott Cove consisting of 4,400 feet of earth-filled dike and two pump stations with a total capacity of 85,500 gallons per minute. Project construction was completed in January 1969. The project is operated and maintained by the City of Stamford, with the exception of the navigation gate, which is operated and maintained by the Corps of Engineers.

RECOVERY ACT ALLOCATIONS TO DATE: $503,000
CONFERENCE FOR FY 2010: **T**: $412,000
BUDGET FOR FY 2011: **M**: $124,000 **O**: $343,000 **T**: $467,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $452,000 – Funding provides for routine essential operation and maintenance activities necessary to operate the gates and protect life and property in downtown Stamford during coastal flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and gate operation. Project has prevented an estimated $27.8 million in flood damages since placed in service in 1969.

Rec: N/A

Hydro: N/A

ES: $15,000 – Funding provides for completion of required Environmental Compliance Reassessment of the project.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Stillwater Lake, PA

AUTHORIZATION: Flood Control Act of 18 August 1941 as a modification of Flood Control Act of 22 June 1936 and described in House Document 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Stillwater Lake is located in Susquehanna County on the Lackawanna River four miles north and upstream from Forest City, PA. The dam is an earthfill structure, 1,700 feet long and rises 75 feet above the streambed, with a spillway and gate controlled outlet. The reservoir has a storage capacity of 11,600 acre feet at spillway crest, and controls a drainage area of 36.8 square miles. The project reduces flood heights on the Lackawanna River, downstream of the dam and on the Susquehanna River, downstream from its confluence with the Lackawanna River. Additionally, the Pennsylvania-American Water Company utilizes Stillwater as a source of water supply for the Forest City Water Purification Plant on infrequent occasions. The intake facility is located immediately downstream of the reservoir on the Lackawanna River. The Pennsylvania Fish and Boat Commission operates and maintains a boat launch at the lake under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $430,000
BUDGET FOR FY2011: M: $112,000 **O**: $251,000 **T**: $363,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $358,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $0 - NA

Hydro: $0 – NA

ES: $5,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Chris P. Carney (PA-10), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

Division: North Atlantic District: Baltimore Project Name: Stillwater Lake, PA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Surry Mountain Lake, New Hampshire

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Surry Mountain Lake is located along the Ashuelot River, about 34.6 miles upstream from its junction with the Connecticut River and 5 miles north of Keene, New Hampshire. The project is located in the Towns of Surry and Gilsum, New Hampshire. Surry Mountain Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,800 feet long with a maximum height of 86 feet; an uncontrolled ogee weir spillway, 338 feet wide with a maximum discharge capacity of 50,000 cubic feet per second; and a 10-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 33,000 acre-feet to control runoff from its net drainage area of 100 square miles. Construction of the dam and appurtenant structures was initiated in August 1939 and completed in October 1941.

RECOVERY ACT ALLOCATIONS TO DATE: $67,000
CONFERENCE FOR FY 2010: T: $722,000
BUDGET FOR FY 2011: **M**: $285,000 **O**: $461,000 **T**: $746,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $581,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $86.6 million in flood damages since placed in service in 1941.

Rec: $94,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 84,000 visitors each year.

Hydro: N/A

ES: $71,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is an inventory of the vegetative cover of project lands, and a dwarf wedge mussel study. The project consists of 1,695 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tangier Channels, VA

AUTHORIZATION: The project was authorized by the River and Harbor Act of 2 March 1919 and modified by the P.W.A. Acts of 3 January 1934 and 30 August 1935 and the River and Harbor Act of 2 March 1945. The project was also modified in 1964 under Section 107 of the River and Harbor Act of 14 July 1960.

LOCATION AND DESCRIPTION: The project is located in the Chesapeake Bay in Accomack County, Virginia and near the Maryland-Virginia state line. The main channel from Tangier Sound to the basin at Tangier, Virginia is 8 feet deep and 60 to 80 feet wide. The harbor basin is 7 feet deep and 400 feet square. The channel from the basin westward to the Chesapeake Bay is 7 feet deep and 60 feet wide. The total project length is 2 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: $0
BUDGET FOR FY 2011: **M**: $1,135,000 **O**: $0 **T**: $1,135,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,135,000 will be used to perform the cyclical scheduled maintenance dredging of the channels and basin. Failure to dredge the channels will result in the disruption and inability to provide basic services of food and fuel to the island residents. The primary economy, commercial fishing industry, will be adversely impacted.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: This subsistence harbor supports a productive commercial fishing industry and a community that has existed since the late 1700s. The channels and basin provide the means for virtually all supplies, heating oil, motor fuel and ferry services to reach the island. The residents could lose all economic means if the channels and basin are not maintained.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Thomaston Dam, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1944.

LOCATION AND DESCRIPTION: Thomaston Dam is located along the Naugatuck River, about 30.4 miles upstream from its confluence with the Housatonic River. The project is located in Thomaston, Litchfield, Harwinton and Plymouth, Connecticut. Thomaston Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Housatonic River Basin. The project consists of an earth-filled dam with an impervious core and stone slope protection, 2,000 feet long and a maximum height of 142 feet; an uncontrolled side channel spillway, 435 feet wide with a maximum discharge capacity of 132,200 cubic feet per second; and a 10-foot diameter horseshoe-shaped outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 42,000 acre-feet to control runoff from its net drainage area of 97.2 square miles. Construction of the dam and appurtenant structures was initiated in May 1958 and completed in November 1960.

RECOVERY ACT ALLOCATIONS TO DATE: $163,100
CONFERENCE FOR FY 2010: T: $1,080,000
BUDGET FOR FY 2011: **M**: $189,000 **O**: $805,000 **T**: $994,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $807,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also included is the required five year cycle Periodic Inspection and required inspections of two public use bridges located on project lands. Project has prevented an estimated $451 million in flood damages since placed in service in 1960.

Rec: $95,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 179,000 visitors each year.

Hydro: N/A

ES: $92,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 849 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Thomaston Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of III in March 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tioga-Hammond Lakes, PA

AUTHORIZATION: Flood Control Act of 3 July 1958, House Document 394, 84th Congress, Second session.

LOCATION AND DESCRIPTION: System Code 0205- The Tioga-Hammond Lakes project is located just upstream of Tioga, Pennsylvania. The Tioga-Hammond Lakes project consists primarily of two separate dams, one on Tioga River, and one on Crooked Creek. Both dams are located approximately two miles upstream of the confluence of the two streams. The lakes are joined by a gated connecting channel in a saddle of the ridge separating the two streams. An uncontrolled spillway in Hammond Dam serves both reservoirs. A gated outlet conduit is provided in the left abutment of Tioga Dam for the control of flows for both reservoirs. Tioga Dam is of earth and rockfill construction, 2,738 feet in length, and has a maximum height of 140 feet above the streambed. Hammond Dam is of earth and rockfill construction, 6,000 feet in length and has a maximum height of 122 feet above the streambed. An additional project feature is the Mansfield local flood protection project which consists of channel improvements, levees, and pumping stations which provide protection to the borough of Mansfield during high water events. The Corps operates and maintains the Ives Run and Lambs Creek recreation areas, as well as two overlooks.

RECOVERY ACT ALLOCATIONS TO DATE: $1,314,000
CONFERENCE AMOUNT FOR FY2010: $2,334,000
BUDGET FOR FY2011: **M**: $75,000 **O**: $2,309,000 **T**: $2,384,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $1,134,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $945,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $305,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Glenn Thompson (PA-5), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Townshend Lake, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1944 and 1954. Fish passage facility was authorized by Section 872 of WRDA 1986.

LOCATION AND DESCRIPTION: Townshend Lake is located along the West River, about 19.1 miles above its junction with the Connecticut River in Brattleboro, Vermont, and about two miles west of Townshend, Vermont. The reservoir extends upstream about four miles. Townshend Lake is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with rock slope protection, 1,700 feet long with a maximum height of 133 feet; and a horseshoe-shaped concrete outlet conduit with a maximum discharge capacity of 22,100 cubic feet per second. The reservoir provides a flood storage capacity of 33,700 acre-feet to control runoff from its net drainage area of 106 square miles. Construction of the dam and appurtenant structures was initiated in November 1958 and completed in June 1961. Construction of recreation facilities was initiated in October 1969 and completed in September 1971. Fish passage facility work began in June 1992 and was completed in February 1993.

RECOVERY ACT ALLOCATIONS TO DATE: $108,000
CONFERENCE FOR FY 2010: **T**: $774,000
BUDGET FOR FY 2011: **M**: $335,000 **O**: $462,000 **T**: $797,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $609,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $110 million in flood damages since placed in service in 1961.

Rec: $119,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 67,000 visitors each year.

Hydro: N/A

ES: $69,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a pest management program at the project. The project consists of 1,010 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tully Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Tully Lake is located along the East Branch of the Tully River, about 3.9 miles above its junction with the Millers River. The project is located in the Towns of Royalston and Tolland, Massachusetts. Tully Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth-filled dam with an impervious core and rock slope protection, 1,570 feet long and a maximum height of 62 feet; an uncontrolled ogee weir spillway, 255 feet wide with a maximum discharge capacity of 32,700 cubic feet per second; and a 6-foot diameter outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 22,525 acre-feet to control runoff from its net drainage area of 50 square miles. Construction of the dam and appurtenant structures was initiated in March 1947 and completed in September 1949.

RECOVERY ACT ALLOCATIONS TO DATE: $212,100
CONFERENCE FOR FY 2010: **T**: $633,000
BUDGET FOR FY 2011: **M**: $186,000 **O**: $540,000 **T**: $726,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $587,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes the required inspection of one public use bridge located on project lands. Project has prevented an estimated $25.9 million in flood damages since placed in service in 1949.

Rec: $64,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 58,000 visitors each year.

Hydro: N/A

ES: $75,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,258 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Union Village Dam, Vermont

AUTHORIZATION: Authorized by the Flood Control Acts of 1936 and 1938.

LOCATION AND DESCRIPTION: Union Village Dam is located along the Ompompanoosuc River, about 4 miles upstream from its junction with the Connecticut River. The dam lies about one-fourth mile north of Union Village, Vermont and 11 miles north of White River Junction, Vermont. Union Village Dam is operated as part of a comprehensive system of flood control projects designed to protect life and property within the Connecticut River Basin. The project consists of an earth and rock-filled dam, 1,100 feet long with a maximum height of 170 feet; an uncontrolled ogee weir spillway, 388 feet wide with a maximum discharge capacity of 84,900 cubic feet per second; and a 13-foot diameter outlet conduit with 2 control gates. The reservoir provides a flood storage capacity of 38,400 acre-feet to control runoff from its net drainage area of 126 square miles. Construction of the dam and appurtenant structures was initiated in March 1947 and completed in June 1950.

RECOVERY ACT ALLOCATIONS TO DATE: $127,750
CONFERENCE FOR FY 2010: **T**: $596,000
BUDGET FOR FY 2011: **M**: $273,000 **O**: $410,000 **T**: $683,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $542,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required inspection of one public use bridge located on project lands. Project has prevented an estimated $40.8 million in flood damages since placed in service in 1950.

Rec: $89,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 45,000 visitors each year.

Hydro: N/A

ES: $52,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. Also included is a pest management program at the project. The project consists of 991 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Union Village Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of II in September 2009. The principle issue is seepage.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Washington Harbor, DC

AUTHORIZATION: River and Harbor Committee, Document 22, 74th Congress. 1st Session, August 30, 1935.

LOCATION AND DESCRIPTION: System Code 0207- Washington Harbor Project is located within Washington, DC. The project provides for a channel in the Potomac River from Giesboro Point to Key Bridge, a second channel from Giesboro Point to the end of Washington Channel, and a third channel from the mouth of the Anacostia River to the foot of 15th Street, S.E., with turning basins opposite the Washington Navy Yard (800 feet wide and 2,400 feet long) and at the head of the Anacostia Channel (400 feet square). Channel dimensions are 24 feet deep and 400 feet wide except upstream from Anacostia Bridge where the width is reduced to 200 feet and from Giesboro Point to a point 3,000 feet downstream of Arlington Memorial Bridge and above Easby Point where channel dimensions are 20 feet deep and 200 feet wide. The project also provides for the operation and maintenance of the inlet and outlet gates to the tidal basin

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $25,000
BUDGET FOR FY2011: **M**: $25,000 **O**: $0 **T**: $25,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $25,000 - Funding will provide for annual maintenance to ensure the proper operation of the tidal basin of the inlet and outlet flood gates.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Delegate Eleanor Holmes Norton (DC)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Water and Environmental Certifications, VA

AUTHORIZATION: Not applicable. Each project covered under this program has its own authorization.

LOCATION AND DESCRIPTION: Provides funding for coordination and renewal of water quality and other environmental certifications for navigation projects not otherwise included in the budget. The location includes all potential navigation maintenance dredging projects within Norfolk District area of operations. Projects that are supported by this program will include active navigation projects that are due for maintenance but not funded in this budget cycle for maintenance dredging.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: $99,000
BUDGET FOR FY 2011: **M**: $0 **O**: $104,000 T: $104,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $104,000 will be used for critical activities to acquire water quality or environmental certifications, and perform coordination for three projects. If these activities are not completed, cyclical maintenance dredging projects that do not receive annual funding will not have required environmental documentation necessary to perform maintenance when needed.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: This is a relatively new program supported by the Corps of Engineers budget guidance for Operation and Maintenance, General. The program recognizes that there is essential advance work needed to support the maintenance of critical navigation projects during the years before the projects are funded for maintenance dredging.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Waterway on the Coast of Virginia, Accomack and Northampton Counties, Virginia

AUTHORIZATION: River and Harbor Act of 25 June 1910, River and Harbor Act of 2 March 1945 and Section 201 of the Flood Control Act of 1965.

LOCATION AND DESCRIPTION: The channel in Virginia is 6 feet deep and 60 feet wide from the Maryland-Virginia line in Chincoteague Bay to the Chesapeake Bay, about 90 miles long. It is a portion of the 145 mile channel from the Delaware Bay at Roosevelt Inlet, Delaware, to the Chesapeake Bay, Virginia. Its primary functions are to provide transient vessels a protected north-south route and to connect Eastern Shore harbors to each other and to the Atlantic Ocean.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: T: $191,000
BUDGET FOR FY 2011: **M**: $143,000 **O**: $0 **T**: $143,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $143,000 – funding will allow the District to accomplish a minimal caretaker effort including the continued coordination of project issues with stakeholders who otherwise might not get critical information needed to make prudent decisions as waterway users.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION: Every major channel segment along the waterway needs dredging, but the worst area along the waterway is within Metompkin Bay where the channel is completely blocked. There are other hazardous shoals along the waterway due to many years of no dredging, creating a significant safety risk.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Hill Dam, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1944.

LOCATION AND DESCRIPTION: West Hill Dam is located along the West River in Massachusetts, about three miles above its confluence with the Blackstone River and 2.5 miles northeast of Uxbridge, Massachusetts. West Hill Dam is part of a comprehensive system of flood control projects designed to protect life and property within the Blackstone River Basin. The project consists of an earth-filled dam with rock slope protection, 2,400 feet long and a maximum height of 48 feet; 4 earth-filled dikes with rock and gravel slopes, totaling 1,910 feet in length; an ogee weir spillway, 50 feet long with a maximum discharge capacity of 8,900 cubic feet per second; and 3 rectangular outlet conduits. The reservoir provides a flood storage capacity of 12,440 acre-feet to control runoff from its net drainage area of 27.9 square miles. Construction of the dam and appurtenant structures was initiated in June 1959 and completed in June 1961. Construction of recreational facilities was completed in June 1967. Major rehabilitation of the dam was completed in July 2003.

RECOVERY ACT ALLOCATIONS TO DATE: $408,050
CONFERENCE FOR FY 2010: T: $544,000
BUDGET FOR FY 2011: **M**: $214,000 **O**: $628,000 T: $842,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $697,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required five year cycle Periodic Inspection of the project and required inspections of three public use bridges located on the project lands. Project has prevented an estimated $71.7 million in flood damages since placed in service in 1961.

Rec: $107,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 58,000 visitors each year.

Hydro: N/A

ES: $38,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 557 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: West Thompson Lake, Connecticut

AUTHORIZATION: Authorized by the Flood Control Act of 1960.

LOCATION AND DESCRIPTION: West Thompson Lake is located along the Quinebaug River, in the Town of Thompson, Connecticut. West Thompson Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 2,550 feet long and a maximum height of 69.5 feet; an earth-filled dike 1,650 feet long with a maximum height of 30 feet; an uncontrolled L-shaped ogee weir spillway, 320 feet wide with a maximum discharge capacity of 63,000 cubic feet per second; and a 12-foot diameter horseshoe-shaped outlet conduit with 3 control gates. The reservoir provides a flood storage capacity of 26,800 acre-feet to control runoff from its net drainage area of 173.5 square miles. Construction of the dam and appurtenant structures was initiated in August 1963 and completed in October 1965.

RECOVERY ACT ALLOCATIONS TO DATE: $605,200
CONFERENCE FOR FY 2010: T: $541,000
BUDGET FOR FY 2011: **M**: $206,000 **O**: $643,000 **T**: $849,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $698,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Also includes required five year cycle Periodic Inspection of the project and required inspection of one public use bridge located on project lands. Project has prevented an estimated $41.2 million in flood damages since placed in service in 1965.

Rec: $91,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 165,000 visitors each year.

Hydro: N/A

ES: $60,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 1,672 fee owned acres of land.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Westchester Creek, NY

AUTHORIZATION: Adopted in 1922 and modified in 1954; Approved Rivers and Harbors Act, 3 September 1954.

LOCATION AND DESCRIPTION: Westchester Creek Federal navigation project is located in the greater New York City area, specifically in Bronx, NY. Westchester Creek provides for a Channel, 12 feet deep below mean low water (MLW), 100 ft. wide, for a distance of 2,000 ft. at the entrance, thence 80 ft. wide for a distance of 3,000 ft. and thence 60 ft. wide for a distance of 8,800 ft. to the head of navigation at East Tremont Avenue (Fort Schuyler Road), with widening at bends. Three turning basins, 12 ft. deep below MLW, one near the head of navigation, one located about 500 ft. downstream, and one near Eastern Boulevard (Unionport) Bridge.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: T: $100,000
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $100,000
Funds will be used for caretaker activities to monitor conditions and coordinate channel survey data with navigation stakeholders including the U.S Coast Guard. Funds will also be used to complete local sponsor agreements for future maintenance dredging. An Average 194,000 tons per year of fuel product pass through this federal channel to supply the Bronx borough residents with heating oil.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION:

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Westville Lake, Massachusetts

AUTHORIZATION: Authorized by the Flood Control Act of 1941

LOCATION AND DESCRIPTION: Westville Lake is located along the Quinebaug River, about 56.7 miles upstream from its confluence with the Shetucket River. The project is located in the Towns of Sturbridge and Southbridge, Massachusetts. Westville Lake is part of a comprehensive system of flood control projects designed to protect life and property within the Thames River Basin. The project consists of an earth-filled dam with stone slope protection, 560 feet long and a maximum height of 78 feet; an uncontrolled ogee weir spillway, 200 feet wide with a maximum discharge capacity of 24,500 cubic feet per second; and 3 rectangular outlet conduits with a control gate. The reservoir provides a flood storage capacity of 11,100 acre-feet to control runoff from its net drainage area of 99.5 square miles. Construction of the dam and appurtenant structures was initiated in April 1960 and completed in August 1962.

RECOVERY ACT ALLOCATIONS TO DATE: $817,000
CONFERENCE FOR FY 2010: **T**: $745,000
BUDGET FOR FY 2011: **M**: $210,000 **O**: $451,000 **T**: $661,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $542,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling reservoir releases; as well as maintaining service contracts for snow and debris removal, and vegetation control along dam slopes. Project has prevented an estimated $48.8 million in flood damages since placed in service in 1962.

Rec: $76,000 – Funding provides for routine operation and maintenance activities necessary to support the recreational facilities at the project. The project provides recreation opportunities to an average of 68,000 visitors each year.

Hydro: N/A

ES: $43,000 – Funding provides for routine operation and maintenance activities necessary to maintain the environmental integrity of project lands. The project consists of 578 fee owned acres of land.

WS: N/A

OTHER INFORMATION: Westville Dam was assigned a Dam Safety Assurance Classification (DSAC) rating of I in May 2009. The principle issue is seepage. Dam Safety Construction funds are currently being used to study the seepage at the dam.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitney Point Lake, NY

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, 2nd Session.

LOCATION AND DESCRIPTION: System Code 0205- Whitney Point Lake is located near Whitney Point, New York, on the Otselic River, a tributary of the Tioughnioga River, which discharges into the Chenango River, which discharges into the Susquehanna River at Binghamton, New York. The dam is an earthfill structure, 4,900 feet long, rising 95 feet above the streambed, with a concrete spillway and a gated outlet in the left abutment. The reservoir has a storage capacity of 86,440 acre-feet at spillway crest and will extend about 12 miles upstream when filled to that level. The project controls a drainage area of 255 square miles, the entire watershed of the Otselic River, and 16 percent of the Chenango River watershed upstream from Binghamton. The project forms part of the protection for Binghamton and reduces flood heights on the lower Chenango River and throughout the Susquehanna River Valley downstream from Binghamton. The Broome County Department of Parks and Recreation operates and maintain Dorchester Park under a real estate agreement.

RECOVERY ACT ALLOCATIONS TO DATE: $152,284
CONFERENCE AMOUNT FOR FY2010: $651,000
BUDGET FOR FY2011: M: $148,000 **O**: $494,000 **T**: $642,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $585,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $34,000 - Funding will provide for reduced level of service for recreation.

Hydro: $0 - NA

ES: $23,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Michael A. Arcuri (NY-24), Senators Charles E. Schumer (NY), Kirsten E. Gillibrand (NY)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wicomico River, MD

AUTHORIZATION: House Document 20, 51st Congress, 1st Session, September 19, 1890, modified by House Document 569, 61st Congress, 2nd Session, June 25, 1910; House Document 1509, 63rd Congress, 3rd Session, March 2, 1919; Senate Committee, 75th Congress, 3rd Session, August 26, 1937; and House Document 619, 81st Congress, 2nd Session, September 3, 1954.

LOCATION AND DESCRIPTION: System Code 0206- The Wicomico River Federal navigation project is located in Wicomico and Somerset Counties, Maryland. The project provides for a channel 14 feet deep and 150 feet wide from the Chesapeake Bay to Salisbury, including a 100 foot wide channel with turning basins all 14 feet deep in the north and south prongs, and a 60 foot wide channel 6 feet deep from deep water in the river to Webster Cove, with a T-shaped basin in the cove 100 feet wide and 400 feet long; and extension of the basin 200 feet long and 100 feet wide on each side. The total project length is 37 miles and different reaches of the project require dredging each year.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $1,593,000
BUDGET FOR FY2011: M: $1,500,000 **O**: $0 T: $1,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $1,500,000 - Funding will provide maintenance dredging of upper river.

FRM: $0 - NA

Rec: $0 - NA

Hydro: $0 - NA

ES: $0 - NA

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Frank Kratovil Jr. (MD-1), Senators Benjamin L. Cardin (MD), Senator Barbara A. Mikulski (MD)

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, New Castle County, Delaware

AUTHORIZATION: The existing project, adopted as HD 54-66 in 1896 and 1899, and modified by HD 67-114 in 1922, by HD 71-20 in 1930, by HD 73-32 in 1935, by HD 76-658 in 1940, by SD 86-88 in 1960, and further modified pursuant to the authority of Section 107 of the River and Harbor Act of 1960 (PL 86-645).

LOCATION AND DESCRIPTION: Wilmington Harbor provides for a channel with depths of 38, 35, 21, 10, and 7 feet from the Delaware River to Newport, DE, a turning basin 2050 feet long, 640 feet wide and 38 feet deep opposite the Wilmington Marine Terminal, and jetties at the mouths of Christina and Brandywine Rivers. The project extends from the Delaware ship channel upstream, a length of about 9.9 miles.

RECOVERY ACT ALLOCATIONS TO DATE: $3,860,000

CONFERENCE FOR FY 2010: **T**: $1,430,550

BUDGET FOR FY 2011: **M**: $3,925,000 **O**: $345,000 **T**: $4,270,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

NAV: Funds in the amount $4,270,000 would be used for operation and maintenance activities for the project, including maintenance dredging, continued work under the Dredged Material Management Plan, disposal area maintenance activities, and conduct monthly channel examination surveys.

FRM: $0 N/A.

REC: $0 N/A.

HYDRO: $0 N/A.

ES: $0 N/A.

WS: $0 N/A

OTHER INFORMATION: The Port of Wilmington is a full-service deep water port handling over 400 vessels per year with an annual import/export cargo tonnage of 5 million tons. The port contributes significantly to the Delaware's economic vitality by creating 5,800 jobs resulting in $225 million in annual personal income, annual business revenues of $213 million, and annual state and local taxes totaling $23 million annually. The port is the number one gateway in the United States for imports of fresh fruit, and juice concentrates, the world's largest banana port, and is a key mid-Atlantic distribution hub for imported beef. Largest dockside cold storage and controlled atmosphere facility in the United States.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Woonsocket Local Protection Project, Rhode Island

AUTHORIZATION: Authorized by the Flood Control Act of 1944. Section 2875 of the National Defense Authorization Act for FY 2008 (PL 110-181, dated January 28, 2008) transferred responsibility of the project to the Corps of Engineers.

LOCATION AND DESCRIPTION: The Woonsocket Local Protection Project is located along the Blackstone River in north central Rhode Island, extending about 8,300 feet downstream from the Massachusetts state line to Woonsocket Falls Dam in the center of Woonsocket. The project was authorized by the Flood Control Act of 1944 and completed in April 1960. The project was turned over to the City of Woonsocket to operate and maintain in accordance with the Assurance Agreement dated 8 May 1963. Project consists of widening, deepening and straightening of the river channel for a distance of 8,300 feet upstream of Woonsocket Falls Dam, along with construction of a pumping station, 1,115 feet of earth dike and 316 feet of concrete floodwall. The project included replacement of the Woonsocket Falls Dam with a concrete overflow structure 266 feet wide and equipped with four tainter gates. The project was designed to protect against the flood of record (August 1955).

RECOVERY ACT ALLOCATIONS TO DATE: $3,545,300
CONFERENCE FOR FY 2010: **T**: $190,000
BUDGET FOR FY 2011: **M**: $80,000 **O**: $220,000 **T**: $300,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $300,000 – Funding provides for routine essential operation and maintenance activities necessary to protect downstream life and property during flooding events, and to preserve project infrastructure. Activities include data collection, environmental compliance, project inspections and patrols, and controlling releases from Woonsocket Falls Dam; as well as maintaining service contracts for snow and debris removal, and vegetation control along dike slopes and adjacent to floodwalls. Project has prevented an estimated $113 million in flood damages since placed in service in 1960.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: In accordance with the National Defense Authorization Act of 2008, Operations and Maintenance responsibility of the project was transferred to the Corps.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: York Indian Rock Dam, PA

AUTHORIZATION: Flood Control Act of 22 June 1936, amended by Flood Control Act of 28 June 1938 and described in House Document No. 702, 77th Congress, Second session.

LOCATION AND DESCRIPTION: System Code 0205- The protective works for York, Pennsylvania, consist of Indian Rock Dam about 3 miles upstream from York, and channel improvements on Codorus Creek in the city of York. Indian Rock Dam is an earth and rock structure 1,000 feet long rising 83 feet above the streambed, with a side-channel spillway and gated outlet conduit in the right abutment. The normally dry reservoir area has a storage capacity of 28,000 acre-feet at spillway crest and controls a drainage area of 94 square miles. The Codorus Creek project consists chiefly of 22,969 feet of channel improvement including channel widening and deepening, flood walls, levees, protection of bank slopes, and removal of a mill dam which increased channel capacity to 24,000 cubic feet per second. The two components protect the community against flood discharges about 33 percent greater than the record flood of August 1933. Tropical storm Agnes (June 1972) filled the flood control reservoir and produced spillway flow.

RECOVERY ACT ALLOCATIONS TO DATE: $144,620
CONFERENCE AMOUNT FOR FY2010: $454,000
BUDGET FOR FY2011: **M**: $159,000 **O**: $321,000 **T**: $480,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $0 - NA

FRM: $477,000 - Funding will provide for reduced FDR operation and maintenance costs for project, which includes salaries for on-site staff, utilities, supplies, critical stream gages and minimal contracts.

Rec: $0 - NA

Hydro: $0 - NA

ES: $3,000 - Funding will provide minimum natural resources protection and conseravtion, eco-system management and meet responsibilities for safety and compliance with natural resources laws and regulations.

WS: $0 - NA

OTHER INFORMATION: Congressional Interest: Congressman Todd R. Platts (PA-19), Senators Robert P. Casey, Jr. (PA), Arlen Specter (PA)

NORTHWESTERN DIVISION

NORTHWESTERN DIVISION
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ELK CREEK LAKE, OR NWD-117
EVERETT HARBOR AND SNOHOMISH RIVER, WA NWD-118
FALL CREEK LAKE, OR NWD-119
FERN RIDGE LAKE, OR NWD-120
FORT RANDALL DAM - LAKE FRANCIS CASE, SD NWD-121
FORT PECK DAM & LAKE, MT NWD-122
GARRISON DAM, LAKE SAKAKAWEA, ND NWD-123
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HILLS CREEK LAKE, OR NWD-129
HILLSDALE LAKE, KS NWD-130
HOWARD A. HANSON DAM, WA NWD-131
ICE HARBOR LOCK & DAM, WA NWD-132
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

1 February 2010

NWD-5

INVESTIGATIONS

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation to FY 2011 $	Additional Complete After FY 2011 $
Kansas Citys, Missouri Kansas City District	6,053,000	4,418,000	609,00 0	195,000	0	500,000	331,000

The feasibility study and decision documents for this project are organized into an interim and final feasibility report. The interim report established implementation milestones for Argentine Unit, Fairfax/Jersey Creek Unit, North Kansas City Unit, and the East Bottoms Unit. The final feasibility report will establish implementation milestones for the remaining work.

The existing Kansas Citys, Missouri and Kansas Local Protection Project consist of seven levee units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area. The units extend over 50 miles in length along the rivers. The units have been complete and operating for 30 to 50 years. The Kansas Citys levee system protects about 32 square miles of mostly urban industrial, commercial and residential areas. More than 94,000 persons work in the protected area. The project protects approximately 4,800 significant structures and investment estimated at approximately $16 billion. The protected area is vital to the entire Midwest economy and is a central rail, highway, and warehousing hub for the entire nation.

In July 1993, floodwaters from both the Missouri and Kansas Rivers were near overtopping several of the levee units. Underseepage concerns were also noted during this event. People, equipment, and aircraft were evacuated from areas behind the levee units. The project has prevented approximately $8.5 billion in damages through 1996, of which $3.9 billion was prevented in 1993 alone.

The project currently recommends under seepage, retaining wall, and floodwall modifications to improve the reliability of Missouri River units, and a levee raise and reliability improvements on the Argentine unit located on the Kansas River. The Final Feasibility Report will continue with analysis and recommendations for the Armourdale and Central Industrial District units respective to a lower Kansas River system solution and other minor improvements in various units. The Feasibility study is conducted under the authority of Sec 216 of the 1970 Flood Control Act for review of existing civil works. The local sponsors are the City of Kansas City, Missouri, the North Kansas City Levee District, the Kaw Valley Drainage District, and the Fairfax Drainage District. A Feasibility Cost Sharing Agreement was executed on 18 Sep 2000.

FY10 funding was used to progress critical pieces of this project that are in PED phase. Work continued in the feasibility phase using carryover FY09 funding.

The funds for FY 2011 will be used to progress the feasibility report and the Peer Review required by Water Resources Development Act 2007. The estimated cost of the feasibility phase is $9,604,645, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests; $400,000 in addition is for the required Federally funded external peer review. All or part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$10,855,000	
Reconnaissance Phase (Federal)	850,000	
Feasibility Phase (Federal)	5,203,000	($400,000 Federal Funded Peer Review)
Feasibility Phase (Non-Federal)	4,802,000	

The Interim feasibility study was completed Dec 2006. The schedule for completion of the final feasibility study is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation to FY 2011 $	Additional Complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – FDR							
Topeka, Kansas Kansas City District	2,025,000	75,000	197,000	191,000	143,000	100,000	1,319,000

Topeka Levees is located within the City of Topeka, Shawnee County, Kansas. Construction of a flood protection project at Topeka was completed in Fiscal Year 1974 at a total Federal cost of $21,175,000. The project has prevented an estimated $229,280,000 in flood damages through December 1994, with an estimated $57,792,000 prevented in July and August 1993. The feasibility study was completed and PED was initiated in FY 2009.

The recommended project to increase the reliability of the levee system is estimated to cost $23.5 million, with an estimated Federal cost of $15.3 million and an estimated non-Federal cost of $8.2 million. The project includes floodwall, underseepage, foundation, and pump station modifications. Raising the levees is not included in the proposal. The average annual benefits are $12.0 million, all for flood control. The benefit-cost ratio is 4.5:1 based upon the latest economic analysis, June 2006. The City of Topeka and the North Topeka Drainage District are the sponsors for the project. Latest evidence of sponsor support is the signed design agreement dated September 2009. The sponsor has their share of funds available to finance the PED portion of the design of the project. Preconstruction Engineering and Design will ultimately be cost shared at the rate for the project to be constructed, but will be financed through the Preconstruction Engineering and Design period at 25 percent non-Federal. Any adjustments that may be necessary to bring the Non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. The cost sharing for the project will be 65 percent Federal and 35 percent non-Federal in accordance with the Water Resources Development Act of 1986.

Fiscal Year 2010 funds are being used to continue PED activities.

Fiscal Year 2011 will be used to complete designs of the underseepage and structural feature modifications in the Oakland Unit and progress development of design efforts in the North Topeka unit. Agency technical reviews and design safety reviews in accordance with the Review Plan will be initiated as each design element is completed.

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Total Estimated Preconstruction Engineering and Design Costs	$2,700,000	Total Estimated Preconstruction Engineering and Design Costs	$2,700,000
Initial Federal Share	2,025,000	Ultimate Federal Share	1,755,000
Initial Non-Federal Share	675,000	Ultimate Non-Federal Share	945,000

The PED completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2011

PROJECT: Blue River Channel, Kansas City, Missouri – (Continuing)

LOCATION: The project is located along the Blue River and tributaries in Kansas City, Jackson County, Missouri, and extends from near its mouth (located at Missouri river mile 358.0) to 63rd Street, channel mile 12.5.

DESCRIPTION: The project plan consists of a channel modification along 12.5 miles of the Blue River channel providing flood protection for a once in 30-year flood and reducing flooding for less frequent events.

AUTHORIZATION: 1970 Flood Control Act

REMAINING BENEFIT - REMAINING COST RATIO: 4.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.7 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.6 to 1 at 6 5/8 percent (FY 1979).

BASIS OF BENEFIT-COST RATIO: Economic update of FY 2008, approved July 2008.

SUMMARIZED FINANCIAL DATA:			ACCUM PCT. OF EST. FED COST	PHYSICAL STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$264,850,000		Entire Project	92	To be determined
Estimated Non-Federal Other Costs		39,972,000				
Cash Contribution	0					
Other Costs	39,972,000					
Total Estimated Project Cost		$304,822,000				
Allocations to 30 September 2007 $215,7		12,000				
Allocation for FY 2008		3,277,000				
Allocation for FY 2009		1,627,000				
Recovery Act Allocations to Date		8,593,000				
Conference Allowance for FY 2010		5,291,000				
Allocation for FY 2010		5,291,000				
Allocations through 30 September 2010		234,500,000	89%			
Allocation Requested for FY 2011		4,500,000	90%			
Programmed Balance to Complete after FY 2011		25,850,000				

PHYSICAL DATA

Bridge Alterations at Federal Cost:	
Railroad Bridges - Modify - 15	$23,868,000
Bridge Alterations at Non-Federal Cost:	
Highway Bridges - Modify - 4	$7,502,000
Channel Improvement:	Length
Main Stem, Blue River Channel	12.5 miles

Division: Northwestern District: Kansas City Blue River Channel, Kansas City, Missouri

1 February 2010 NWD-10

JUSTIFICATION: The Blue River basin lies completely in the Kansas City Metropolitan Region, with a 2000 population of 1,776,000 persons. The basin drains an area of 272 square miles and is subject to cloudbursts, prolonged rainstorms, floods, and extended drought periods. The maximum flood of record in the basin occurred in September 1961 and caused an estimated $8 million in damages. An August 1982 flood caused an estimated $3.3 million in damages, and an October 1986 flood along the Brush Creek tributary of the river caused an estimated $209,000 in damages in the lower flood plain. A major flood occurred on the lower portion of the river in May 1990 and caused damages estimated at $100.8 million. The July 1993 flood was not severe in this basin, causing damages estimated at $60,000. The authorized project would have prevented all but minor damages caused by the 1961 event, and all damages caused by the later events. The channel project provides for about a 30-year level of protection to 3,400 acres in the lower basin, including the Blue River Valley Industrial District. Estimated annual average benefits, all flood control, based on 1 October 1990 prices, are $57.3 million, of which $53.7 million are existing benefits and $3.6 million are future benefits.

FISCAL YEAR 2010: The current amount is being applied as follows:

Item		Amount
Award	53rd Street to 63rd Construction Contract	$4,891,000
	Engineering, Design, and Management	300,000
	Construction Management	100,000
	Total	$5,291,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

	Item	Amount
	Award Construction Contract for Habitat Mitigation	$ 4,000,000
	Engineering, Design and Management	260,000
Con	struction Management	240,000
	Total	$4,500,000

NON-FEDERAL COSTS: Local interests are required to furnish without cost to the United States all lands, easements, and rights-of-way required for construction and subsequent maintenance of the project; hold and save the United States free from damages due to construction; perform without cost to the United States necessary highway, highway bridge, and utility alterations required in connection with this project; maintain and operate the project after completion in accordance with regulations prescribed by the Secretary of the Army; and adequately inform all affected persons, at least annually, that the project will not provide complete flood protection. The investment is broken down as follows:

Requirements of Local Cooperation:	Payments Operation, During Maintena Construction and Costs	Annual nce Replacement
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$19,171,000	$50,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities.	$20,801,000 $32,00	0
Total Non-Federal Costs	$39,972,000	$82,000

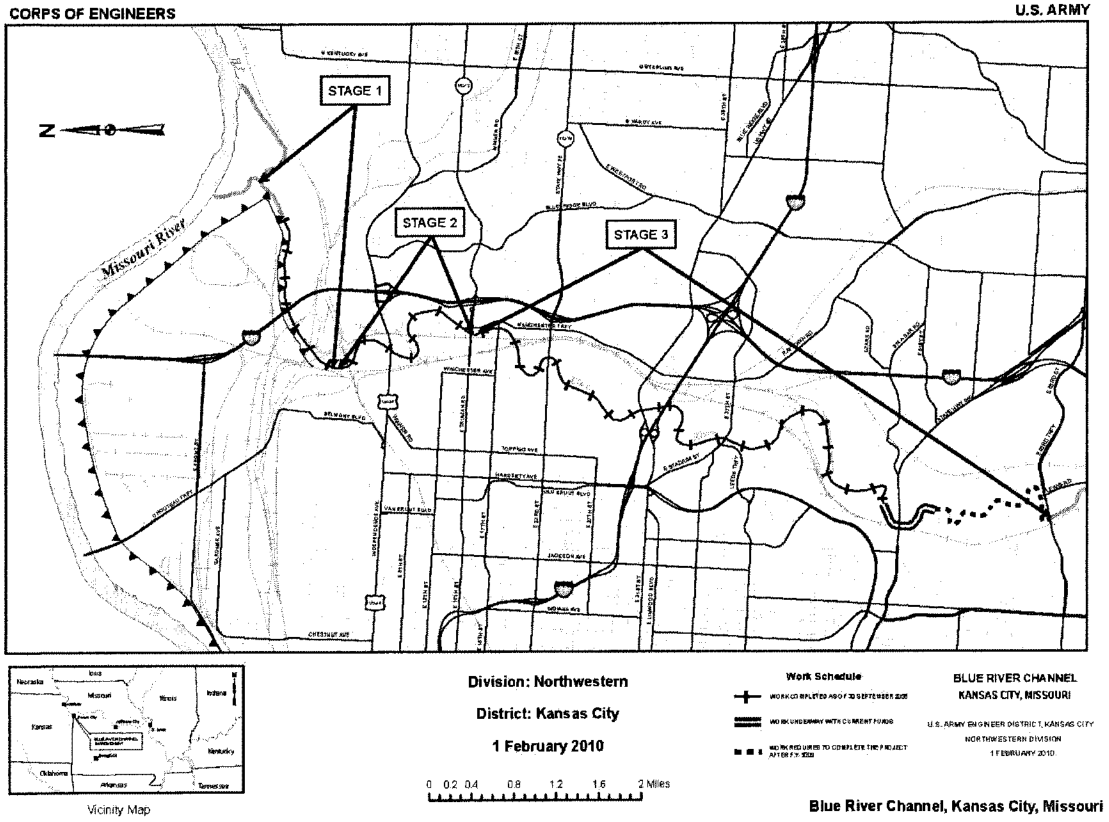
STATUS OF LOCAL COOPERATION: The Section 221 Local Cooperation Agreement (LCA) was signed by the Kansas City District Engineer on 8 September 1983. The City of Kansas City, Missouri provided all the rights-of-way for Stages 1 and 2 construction, that have been completed. Acquisitions for Stage 3 construction are substantially complete.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $264,850,000 is an increase of $5,292,000 from the latest estimate $259,558,000 presented to Congress (FY 2010). This change includes the following items:

Price Escalation on Construction Features	$5,292,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Final statement on Blue River Basin plan made in connection with preauthorization studies was filed with the Council on Environmental Quality (CEQ) on 13 November 1970. A more complete draft statement on the Blue River Basin plan, including specific information on the impacts of the Blue River Channel, was filed with the CEQ on 11 April 1974. The final statement was forwarded to HQUSACE on 24 October 1974, and was filed with the CEQ on 8 September 1975.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1973, and funds to initiate construction were appropriated in FY 1979.



Blue River Channel, Kansas City, Missouri

Division: Northwestern District: Kansas City Blue River Channel, Kansas City, Missouri

1 Febr 2010 NV 3

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2011

PROJECT: Kansas Citys, Missouri and Kansas – (Continuing)

LOCATION: The existing Kansas City, Missouri and Kansas Local Protection Project consists of seven levee units along both banks of the Missouri and Kansas Rivers in the Kansas City Metropolitan area.

DESCRIPTION: The North Kansas City (NKC) Levee Unit is located along the left bank of the Missouri River and is one unit within the Kansas City metropolitan seven levee system. This unit is cooperatively operated as two sections owned and maintained by the North Kansas City Levee District (NKCLD) and the City of Kansas City, Missouri (City of KCMO). The portion of this unit identified with the design deficiencies is owned by the NKCLD and is often called the "lower section". The City of KCMO owns the other major portion (the "Airport" section). The existing unit consists of 6.2 miles of levee, 310 feet of floodwalls, riprap slope protection; a channel relocation of Rock Creek, underseepage berms, pumping plants, drainage structures, and stoplog gaps.

The Fairfax-Jersey Creek Unit is located on the left bank of the Kansas River (Kansas River mile 0.3) downstream to the mouth of the Kansas River and along the right bank of the Missouri River. The Fairfax Drainage District (FDD) owns and provides operation and maintenance for most of the overall unit, starting from upstream of the Jersey Creek area (levee Sta. 31+50) northward all the way to the bluff at the upstream end of unit. The Kaw Valley Drainage District (KVDD) owns and provides operation and maintenance for a smaller segment starting at the Jersey Creek area and continuing around the Kansas River confluence to the lower termination. The portion of this unit identified with the design deficiency is Fairfax Board of Public Utilities (BPU) floodwall which is owned by the FDD. The existing unit consists of about 5.3 miles of levees, 4,040 feet of floodwall, riprap and levee toe protection, closure gaps, drainage structures, relief wells, pumping plants. The wall requires structural reinforcement to provide the originally authorized level of performance. The portion of this unit which is categorized as reconstruction is the 1,400 foot long Jersey Creek Sheet-pile Wall owned by the Kaw Valley Drainage District. This wall has deteriorated over time and was authorized to be reconstructed under WRDA 2007 pursuant to the approved Phase I feasibility study.

These units are a portion of multiple levee units making up the overall project of Kansas Citys, MO & KS that originally cost $68,000,000 including all modifications made during the years 1940 through 1980.

AUTHORIZATION: Section 216 of the 1970 Flood Control Act (PL 91-611); 1936 and 1941 Flood Control Acts; Sec 1001 (28) Water Resources Development Act 2007.

REMAINING BENEFIT – REMAINING COST RATIO: 19.4 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the Chief's Report dated 19 Dec 2006.

SUMMARIZED FINANCIAL DATA:			ACCUM PCT. OF EST. FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$42,530,000		Entire Project	0%	TBD
Estimated Non-Federal Cost		22,900,000				
Cash Contribution	3,271,500					
Other Costs	19,628,500					
Total Estimated Project Cost		65,430,000				
Allocations to 30 September FY 2007		163,000	1/			
Allocation for FY 2008		322,500	1/			
Allocation for FY 2009		1,068,693	1/			
Recovery Allocations To Date		0				
Conference Allowance for FY 2010		486,000	2/			
Allocation for FY 2010		486,000				
Allocations through FY 2010		2,040,193	5%			
Allocation Requested for FY 2011		700,000	6%			
Programmed Balance to Complete after FY 2011		39,789,807				

PHYSICAL DATA

-NKC Levee: underseepage control improvements in 2 areas
  (Harlem and National Starch sites) Deficiency Correction
--Fairfax-Jersey Creek levee unit includes:
  BPU 1,446 LF of floodwall strengthening – Deficiency
    Correction
  Jersey Creek Sheet-pile Wall 1,400 LF Reconstruction
--East Bottoms Levee – underseepage improvements
--Argentine Levee – levee raise to provide orig. authorized protection

1/ Preconstruction, Engineering and Design (PED) funded under the Investigations account
2/ $386,000 funded under the Investigations account and $100,000 funded under Construction account

JUSTIFICATION: North Kansas City levee under-seepage control design deficiency (NKC Levee Unit): Major Life Safety and property damage issues. This project addresses design deficiencies which pose a risk of under-seepage failure for the NKC levee unit under major flood events. High under-seepage pressures are not properly controlled along certain portions of the levee unit which can lead to substantial transport of levee foundation materials during large flood events. This project will provide added under-seepage control keeping pressures within appropriate design criteria. NKC unit provides protection to a wide range of small and medium size businesses plus RR yards, Kansas City Missouri drinking water supply facilities, and the entire downtown Kansas City airport. The unit protects approx $3 Billion total investment and over 25,000 employees and 5,000 residents. Almost all of the North Kansas City community is located within the unit. There is broad local and congressional support.

Fairfax Board of Public Utilities (BPU) floodwall foundation design deficiency (Fairfax-Jersey Creek Levee Unit): Major Life Safety and property damage issues. This site poses a risk of floodwall failure which will affect entire Fairfax-Jersey Creek protected area under extreme flood conditions. Structural risk evaluation indicates the need for strengthening this wall located along the upstream end of the unit directly behind the BPU Power Plant. The design deficiencies are present within an inadequate pile foundation supporting the floodwall. The BPU power plant which serves much of Kansas City, Kansas is adjacent to the floodwall. Overall, the Fairfax Industrial District is a huge manufacturing hub including large GM plant and several other Fortune 500 corporations, along with many smaller businesses. Approximately $3 Billion total investment and 11,000 workers are protected by this unit. There is broad local and congressional support.

Jersey Creek Sheet-pile Wall – Reconstruction - reconstruction of the 1,400 foot long Jersey Creek Sheet-pile Wall owned by the Kaw Valley Drainage District. This wall has deteriorated over time and needs to be replaced.

Division: Northwestern　　District: Kansas City　　Kansas Citys, Missouri and Kansas

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue Pre-construction Engineering and Design for the NKC Levee and the Fairfax-Jersey Creek Levee Deficiency Corrections	$486,000
Total	$486,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete design on Fairfax BPU Floodwall	$700,000
Total	$700,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement
Requirements of Local Cooperation: Provide lands, easements, rights of way, and borrow and excavated material disposal areas which may be reduced for credit allowed based on prior work after reductions for such credit have been made in the required cash payments.	TBD	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	TBD	
Pay for Plans and Specifications for Relocations of utilities and roads	TBD	
Pay percent of the costs allocated to flood control to bring the non-Federal share of flood control costs to 35 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work, or pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	TBD	TBD
Total Non-Federal Costs	22,900,000	TBD

STATUS OF LOCAL COOPERATION: The Design Agreement with the North Kansas City Levee District was executed on 3 August 2007. The Design Agreement with the Fairfax Drainage District was executed 12 August 2008. Both sponsors have necessary funds available to finance the non-Federal portion of the design work. Jersey Creek Sheet-pile wall Design agreement is scheduled to be signed October 2009. Sponsor is Kaw Valley Drainage District.

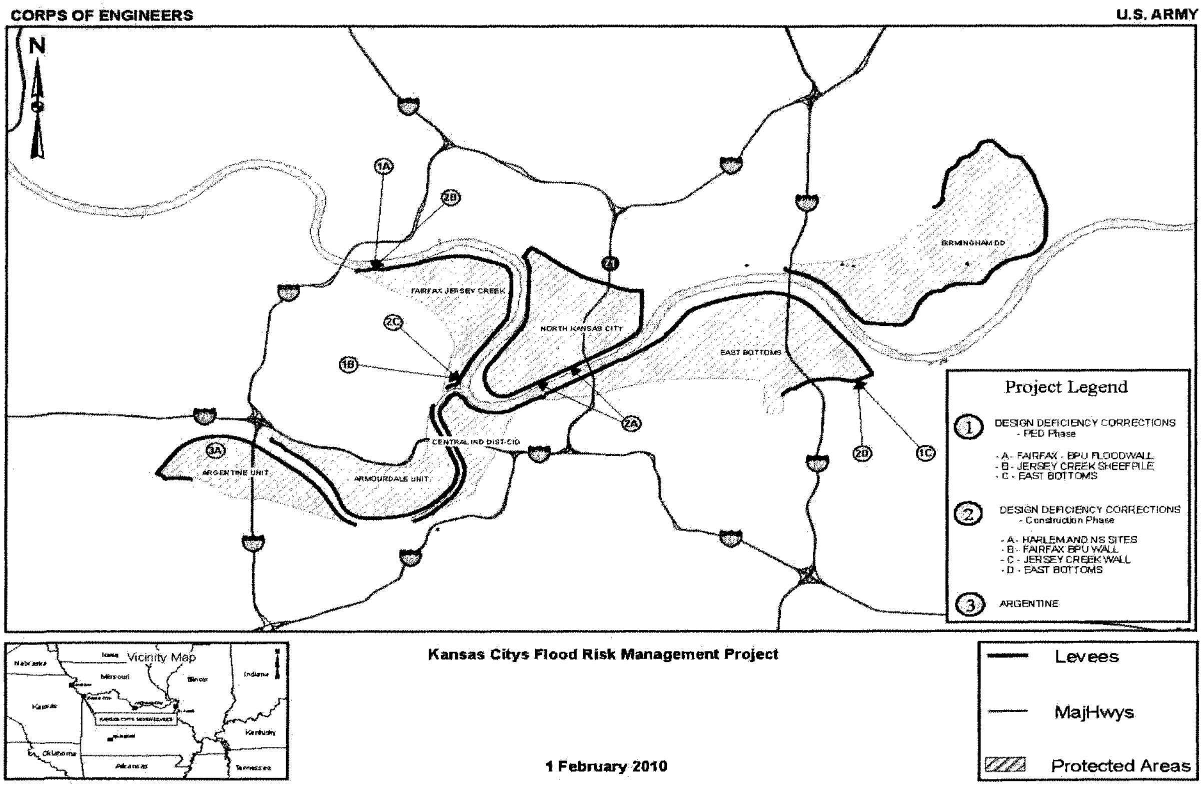
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $42,530,000 is an increase of $24,939,700 from the latest estimate $17,590,300 presented to Congress, (FY2010). This change includes the following:

Item	Amount
Authorized Modifications	$24,939,700

This represents the full scope of the authorized work.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The Interim Feasibility Report and Environmental Impact Statement (EIS), dated August 2006 with Addendum dated December 2006 addresses opportunities for flood risk reduction for the Argentine, East Bottoms, Fairfax-Jersey Creek, Birmingham and North Kansas City levee units of the Kansas Citys Local Flood Damage Reduction Project. The recommended plan has relatively minor impacts to the natural environment with overall positive benefits to the socio-economic environment. Impacts to the natural environment are minor because the project is located within a previously disturbed environment that is highly industrial and urbanized. All practicable means to avoid and/or minimize adverse environmental effects have been incorporated into the recommended plan. The Record of Decision for this project was signed by the ASACW on 21 Nov 2007.

OTHER INFORMATION: The Fairfax-Jersey Creek Sheet-pile Wall is reconstruction of 1,400 LF metal Sheet-pile wall along Missouri River embankment. The design agreement will be executed in FY 2010.



Division: Northwestern

District: Kansas City

1 February 2010

Kansas Citys, Missouri and Kansas

NWD-18

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2011

PROJECT: Mount St. Helens Sediment Control, Washington (Continuing)

LOCATION: A sediment retention structure on the North Fork Toutle River, 3 miles upstream from its confluence with the Green River; a Fish Collection Facility located on the North Fork Toutle River, 8,500 feet downstream of the Sediment Retention Structure; levee improvements at Kelso, Washington on the Cowlitz river; and dredging in the Cowlitz River (river mile 0 - to river mile 20); all located in Cowlitz County, southwest Washington. The river systems impacted by the project include the Toutle, Cowlitz and a portion of the Coweeman River. Most of the population affected by the problems resides in the communities of Longview, Kelso, Lexington and Castle Rock, Washington.

DESCRIPTION: An earth and rock fill sediment retention structure with a spillway height of 125 feet, length of 1,800 feet and a retention capacity of 258 million cubic yards of sediment; a barrier type fish trap facility with a length of 300 feet and a 210 foot fish ladder; levee raise and improvements on the Cowlitz River at Kelso, WA; dredging in the Cowlitz River from the mouth to river mile 20; to provide system-wide flood protection throughout the fifty year project life (1985-2035) at congressionally authorized levels.

AUTHORIZATION: Supplemental Appropriations Act, 1985, PL 99-88.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 3.8 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 3.0 to 1 at 8-5/8 percent. The benefit to cost ratio is based on the project functioning independently.

BASIS OF BENEFIT - COST RATIO: Benefits were updated in June 2007 based on the evaluation reported in the April 1985 Chief of Engineers Report.

RISK INDEX: 2,070

BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$300,400,000	
Programmed Construction		300,400,000		
Unprogrammed Construction		0		
Estimated Non-Federal Cost			$ 25,215,000	
Programmed Construction		25,215,000		
Cash Contribution	4,215,000			
Other	21,000,000			
Unprogrammed Construction		0		

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Sediment Retention Structure	100	Feb 90
Dredging	100	Mar 90
Future Dredging	0	To Be Determined
Entire Project	45	To Be Determined

SUMMARIZED FINANCIAL DATA (Continued)

Total Estimated Programmed Construction Cost	$325,615,000	
Total Estimated Unprogrammed Construction Cost	0	
Total Estimated Project Cost	$325,615,000	
Allocations to 30 September 2007	115,887,000	
Allocation for FY 2008	9,247,000	
Allocation for FY 2009	2,670,000	
Recovery Act Allocations to Date	3,995,000	
Conference Allowance for FY 2010	1,417,000	
Allocation for FY 2010	1,417,000	
Allocations through FY 2010	133,216,000	45%
Allocation Requested for FY 2011	800,000	46%
Programmed Balance to Complete after FY 2011	166,384,000	1/
Unprogrammed Balance to Complete after FY 2011	0	

PHYSICAL DATA
Dam: Type - Earth and Rockfill
Spillway Height - 125 feet
Length - 1,800 feet
Spillway Width - 400 feet
Fish Facility: 300 feet long, concrete
with stilling basin

Fish Ladder: 210 feet long by
6 feet wide, concrete
Lands and Damages: Acres -
5,374 (Sediment Retention Structure)
1,300 (Disposal Sites for Dredging)
25 (Levee Improvements)
Ultimate Sediment Capacity:
258 million cubic yards

1/ Expect Programmed Balance to Complete after FY 2011 to be reduced to $163,379,000 due to additional planned allocation of ARRA funds of $3,005,000.

JUSTIFICATION: The eruption of Mount St. Helens dramatically altered the hydraulic and hydrologic regimes of the Cowlitz and Toutle River Valleys. The Supplemental Appropriation Act, 1985 authorized the Corps to construct, operate and maintain a sediment retention structure (SRS) with such design features and associated downstream actions necessary to provide flood protection to the communities of Longview, Kelso, Castle Rock and Lexington. About 50,000 people and their property are at risk if the flood protection is not maintained.

Changing hydraulic and hydrologic conditions impact downstream deposition of sediment that is now infringing on the congressionally authorized levels of flood protection. Without dredging and other actions in the watershed the authorized level of flood protection will not be maintained.

The ongoing data collection and sediment management analysis work is a critical step in determining what additional measures should be implemented to maintain long-term flood protection for these communities. Potential alternatives to regain/maintain the authorized levels of protection through 2035 include: dredging, improving levee integrity, increasing flood control storage, develop sediment storage sump, establish a main channel above the SRS to reduce sediment delivery.

This project, in addition to preventing damage to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flood depth, velocity, and short warning time) and cultural factors (size of population and available routes of egress from the floodplain).

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue annual sediment monitoring and gradation analysis to track sediment migration and flood protection levels; analyze and develop follow-on long-term alternative plan for system-wide flood and navigation protection $1,417,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue annual sediment monitoring and complete analysis of long-term alternatives for system-wide flood damage reduction and navigation protection..$800,000

NON-FEDERAL COST: In accordance with the agreement between the United States of America and the State of Washington for local cooperation at, along and near the Cowlitz and Toutle Rivers, Cowlitz County, State of Washington, the total estimated non-federal cost for construction is $25,215,000 including allowances for inflation. The non-Federal sponsor must comply with the requirements listed below:

Annual Payments Requirements of Local Cooperation	During Construction	Operation Maintenance and Replacement Costs
Provide lands, easements, rights-of-way, and dredged material disposal areas.	$16,815,000	
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	400,000	
Mitigation for dredging operations	4,400,000	$846,000
Sales & Use Tax Offset from the State of Washington	3,600,000	
Total Non-Federal Payments During Construction	$25,215,000	

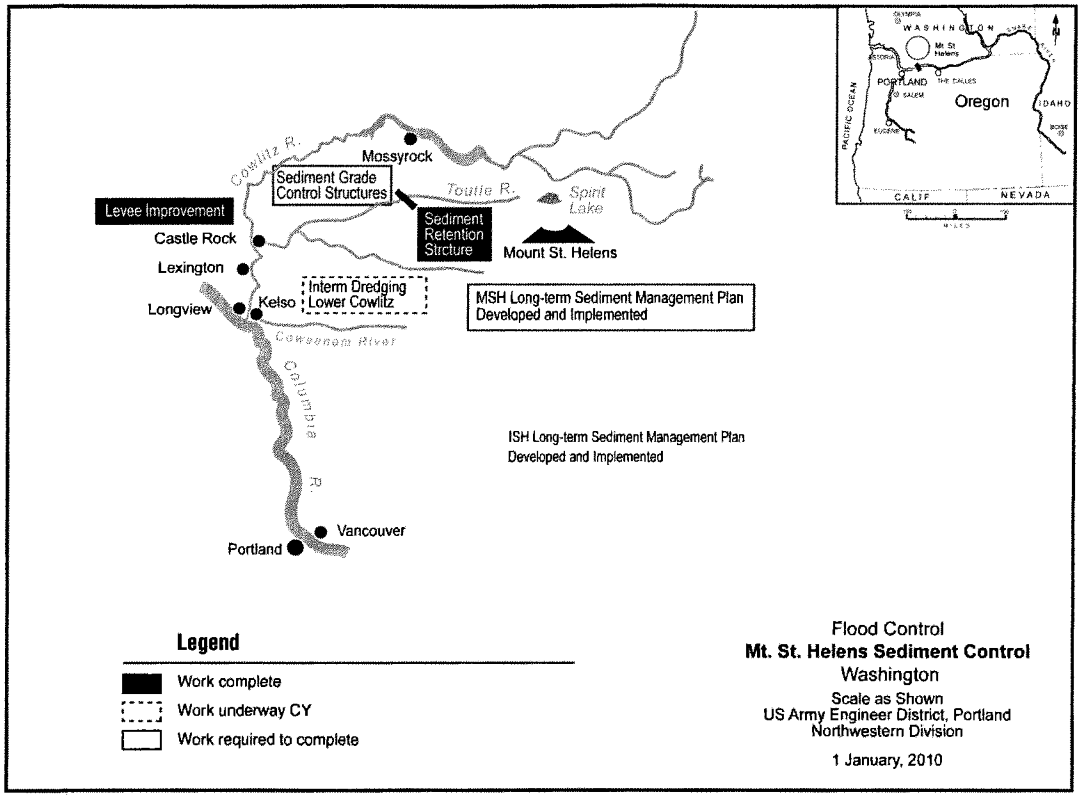
STATUS OF LOCAL COOPERATION: A local cooperation agreement (LCA) for the Sediment Control project was signed on 26 April 1986. The State of Washington is the sponsor for the Sediment Retention Structure (SRS) and dredging portions of the project. Consolidated Diking Improvement District No. 3 and Drainage Improvement District No. 1 are sponsors for the Kelso levee improvement.

Land rights have been obtained by the State over the lands required for initial construction of the SRS. All persons residing within the SRS acquisition boundary have been relocated. The Diking and Drainage Districts have been furnished right-of-way requirements and are continuing their acquisition program. The State is continuing to acquire rights-of-way for additional dredge disposal areas should future dredging be required to preserve authorized flood protection levels.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $297,944,000 is a $63,034,000 increase from the latest estimate submitted to Congress (FY 2010). The increase is due to $6,354,000 for price leveling and $56,680,000 for new work resulting from adaptive management for a long term structural solution.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency (EPA) in December, 1984.

OTHER INFORMATION: Funds to initiate preconstruction planning were allotted in FY 1985 and construction in FY 1986. The project remains open because of the unique circumstances created by the eruption of Mt. St. Helens. Since the small explosive eruption that occurred 1 October 2004, there have been several larger eruptions of steam and ash, with some additional growth of the lava dome within the mountain's existing crater. Significant sediment from the Mt. St. Helen's debris avalanche continues to deposit in the lower Cowlitz River and is beginning to infringe on the authorized level of flood protection. As a result, the project is at the end of the "natural pause" in construction work. Resumption of physical construction is needed to provide flood damage reduction benefits to the lower Cowlitz River communities.



Flood Control
Mt. St. Helens Sediment Control
Washington
Scale as Shown
US Army Engineer District, Portland
Northwestern Division
1 January, 2010

Division: Northwestern District: Portland Mount St. Helens Sediment Control, Washington

1 Febı 2010 NV 3

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2011

PROJECT: Mud Mountain Dam, Washington (Fish Passage Facilities) (Continuing)

LOCATION: Mud Mountain Dam is located at river mile 29.6 on the White River, 6 miles upstream and southeast of Enumclaw, WA and 38 miles southeast of Tacoma, WA in western Washington State.

DESCRIPTION: The existing fish collection facility sorts and collects salmon which are trucked upstream around Mud Mountain Dam. The current fish collection facility is deteriorated and unsafe. Replacement will allow the Corps to continue meeting mitigation requirements for the Mud Mountain Dam Project.

AUTHORIZATION: Flood Control Act of 1936 authorized the Mud Mountain Dam and reservoir on the White River as the main unit of the Puyallup River flood control project.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

INITIAL BENEFIT-COST RATIO: Not applicable

BASIS OF BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA:

		Accumulated Percent of Estimated Federal Cost	Status (1 Jan 2010)	Percent Complete	Physical Completion Schedule
Estimated Federal Cost	$72,251,000		Entire Project	10%	To Be Determined
Estimated Non-Federal Cost	0				
Total Estimated Project Cost	$72,251,000				
Allocations to 30 September 2007	$4,007,000				
Allocation for FY 2008	2,340,000				
Allocation for FY 2009	957,000				
Recovery Act Allocations To Date	0				
Conference Allowance for FY 2010	378,000				
Allocations for FY 2010	378,000				
Allocations through FY 2010	7,682,000	11%			
Allocation requested for FY 2011	1,000,000	13%			
Programmed Balance to Complete after FY 2011	63,569,000				
Unprogrammed Balance to Complete after FY 2011	0				

Division: Northwestern District: Seattle Mud Mountain Dam, Washington

1 February 2010 NWD-24

PHYSICAL DATA: Fish Trap and Haul Facilities Improvements

JUSTIFICATION: Upstream migratory fish passage is currently provided at the fish collection facility located at Buckley, WA which is co-located with a privately owned barrier dam 6 miles downstream of Mud Mountain Dam. The barrier dam is also used to divert water to a recreational lake and a future regional water supply facility and is in need of replacement. The current owner of the diversion dam, Cascade Water Alliance is current owner and ensures operations at the project and the Corps is taking possession of the facility. Since 2002, funds have been provided to plan and design a replacement facility to meet ESA requirements.

FISCAL YEAR 2010: The current amount is being applied as follows:

Continue preparation of Decision Document	$378,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate Real Estate Acquisition	$500,000
Engineering and Design	$500,000
TOTAL $1,000,0	00

NON-FEDERAL COSTS: N/A. Fish passage improvements are a Federal cost.

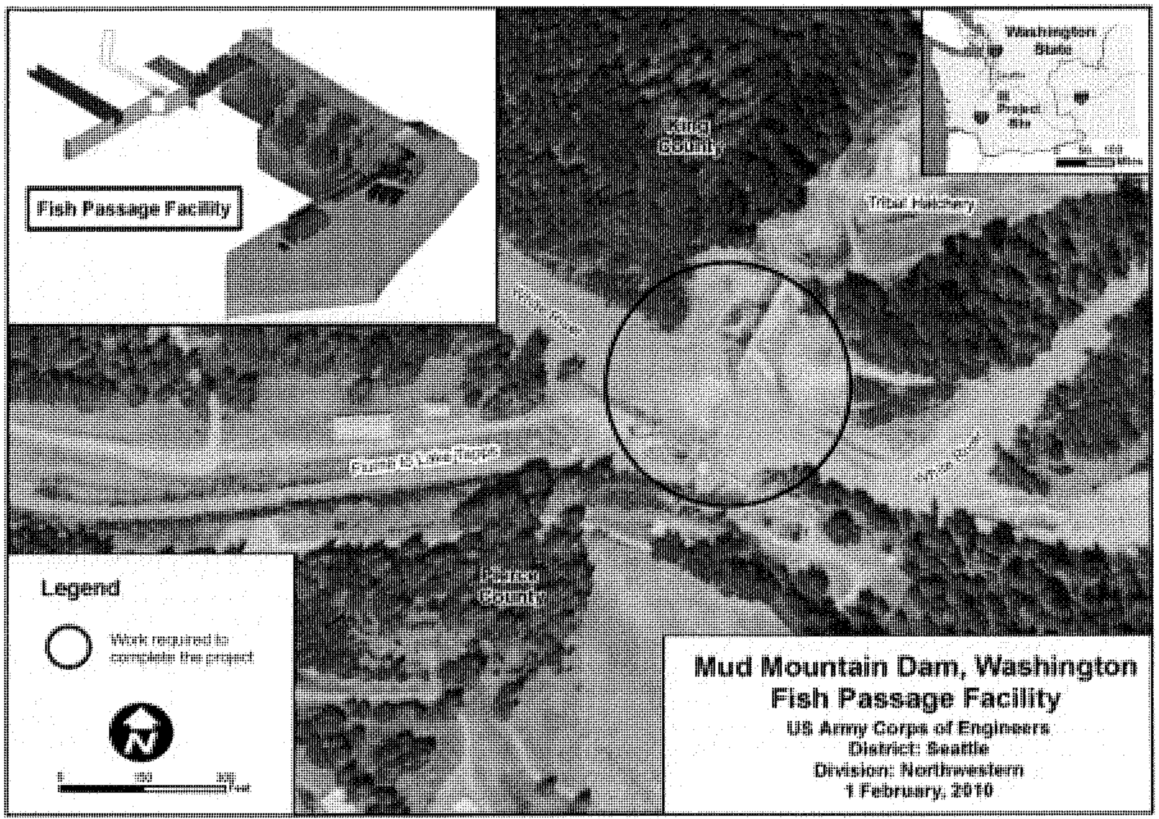
STATUS OF LOCAL COOPERATION: N/A.

COMPARISON OF FEDERAL COST ESTIMATE: The current estimated Federal cost of $72,251,000 is an increase of $19,615,000 from the last estimate ($52,636,000) presented to Congress (FY 2010). This change includes the following items:

Item	Amount
Price Escalation or De-escalation on Construction Features	$ 2,500,000
Other Estimating Adjustments	17,115,000
TOTAL $	19,615,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment for the Dam Safety Assurance Program was completed in June 1986 with an additional Environmental assessment and Finding of No Significant Impact completed in June 1999. An Environmental Assessment and draft Finding of No Significant Impact for the replacement of the barrier dam was completed in October 2007. A programmatic biological assessment under ESA for the Operations and Maintenance of MMD as well as the replacement of the barrier dam was completed in June 2005.

OTHER INFORMATION: Congress added $500,000 in FY 2002 for "the design of fish passage facilities". In FY 2003, Congress also "provided $2,500,000 to continue work on dam safety measures and the fish passage facility." Funding for FY 2004 and FY 2005 included appropriations for the fish passage facility but no specific language. FY 2006 funding included specific language for the fish passage facility.


Fish Passage Facility
King County
Pierce County
Tribal Hatchery
Washington State
Project Site
Legend
Work required to complete the project
Feet
Mud Mountain Dam, Washington
Fish Passage Facility
US Army Corps of Engineers
District: Seattle
Division: Northwestern
1 February, 2010

APPROPRIATION TITLE: Construction, Flood and Coastal Storm Damage Reduction, Fiscal Year 2011

PROJECT: Turkey Creek Basin, Kansas City, Kansas and Missouri – (Continuing)

LOCATION: The 23 square mile urban Turkey Creek basin drains Johnson and Wyandotte Counties in Kansas, and a portion of Kansas City, Missouri. Turkey Creek parallels Interstate Highway 35 for much of its length and flows through a tunnel into the Kansas River approximately three miles upstream of its confluence with the Missouri River.

DESCRIPTION: The plan of improvement consists of approximately ten thousand feet of urban channel modification, a levee section, the raising of two railroad bridges, 12.7 acres of riparian planting and four large drainage interceptor pipelines. A dual flood threat exists in the affected area, which consists of Turkey Creek over-bank flow and localized hillside runoff. Either flood source can cause considerable damage. The channel modification addresses the channel flooding threat, and the interceptors address the hillside component.

AUTHORIZATION: Section 101 of the Water Resources Development Act of 1999 and Section 123 of the Consolidated Appropriations Act of 2003.

REMAINING BENEFIT – REMAINING COST RATIO: 2.0 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.5 to 1 at 5.625 (FY 2004)

BASIS OF BENEFIT-COST RATIO: Economic update of FY 2008, approved July 2008.

RISK INDEX: 270

BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA:			ACCUM PCT. OF EST. FED COST	PHYSICAL STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Estimated Federal Cost		$58,293,000		Entire Project	40	To be determined.
Estimated Non-Federal Cost		31,389,000				
Cash Contribution	16,805,000					
Other Costs	14,584,000					
Total Estimated Project Cost		94,682,000				

SUMMARIZED FINANCIAL DATA (continued):		ACCUM PCT. OF EST. FED COST	PHYSICAL STATUS (1 Jan 10)	PERCENT COMPLETE	COMPLETION SCHEDULE
Allocations to 30 September 2007	9,028,000				
Allocation for FY 2008	8,856,000				
Allocation for FY 2009	9,570,000				
Recovery Act Allocations to Date	675,000				
Conference Allowance for FY 2010	2,822,000				
Allocation for FY 2010	2,822,000				
Allocations through 30 September FY 2010	30,951,000	53%			
Allocation Requested for FY 2011	8,000,000	67%			
Programmed Balance to Complete after FY 2011	19,342,000				

PHYSICAL DATA
Channel Modification: 10,000 feet
Levee: 2,800 feet
Tunnel: 1,300 feet

Railroad Bridge Raises: 2 each
Interceptors: 16,000 feet
Riparian Planting: 12.7 Acres

JUSTIFICATION: The Turkey Creek basin is a 23-square-mile area within Kansas City, Kansas and suburbs in Johnson and Wyandotte Counties. The basin is nearly 100 percent urbanized, and a significant amount exists within the flood plain. Commercial and industrial investment, valued at over $139 million, along with residential and other property valued at approximately $9 million are subject to flood damage. There are almost 500 businesses within the project area accounting for more than 6,000 jobs. Phasing of channel construction to coincide with widening of Interstate Highway 35 by the Kansas Department of Transportation (KDOT) resulted in significant project cost savings. KDOT's work on the channel is complete. A dual flood threat exists in the study area that consists of Turkey Creek over-bank flows and localized hillside runoff. Either flood source can cause considerable damage. Average annual damages without the project are estimated at $11.7 million and with the project at $3.2 million. Six damaging floods have occurred since 1977. The flood of record occurred in July 1993 causing one fatality and damages estimated at $20 million in 1993 or $28 million at current price level. Another flood of similar magnitude to the 1993 event occurred in October of 1998. The recent severe floods have occurred at night and on weekends when the commercial industrial corridor was inactive. A flood of similar magnitude occurring during normal business hours has the potential to result in multiple fatalities. The authorized project includes construction of channel modifications with a one-percent level of protection and tributary floodwater diversion. Average annual benefits are $8,487,000.

FISCAL YEAR 2010: The current amount is being applied as follows:

	Award Walled Channel	$2,000,000
	Purchase 4.4 Mile Railroad Bridge Steel	500,000
	Engineering, Design and Construction Mgmt	322,000
Total		$2,822,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

	Continue 4.4 Mile Railroad Bridge	$7,040,000
	Engineering, Design and Construction Mgmt	960,000
Total		$8,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated material disposal areas.	5,149,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	4,435,000	
Pay 100% of the cost allocated to the Mission Road Interceptor and increasing the level of protection of the Missouri Interceptor from 10 years to 15 years (Locally Preferred Plan).	5,000,000	
Credit allowed based on prior work.	5,000,000	
Pay 22 percent of the costs allocated to flood control to bring the non-Federal share of flood control costs to 35 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect non-Federal sponsor's ability to pay as reduced for credit allowed based on prior work, or pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	16,805,000	112,000
Total Non-Federal Costs	36,389,000	112,000

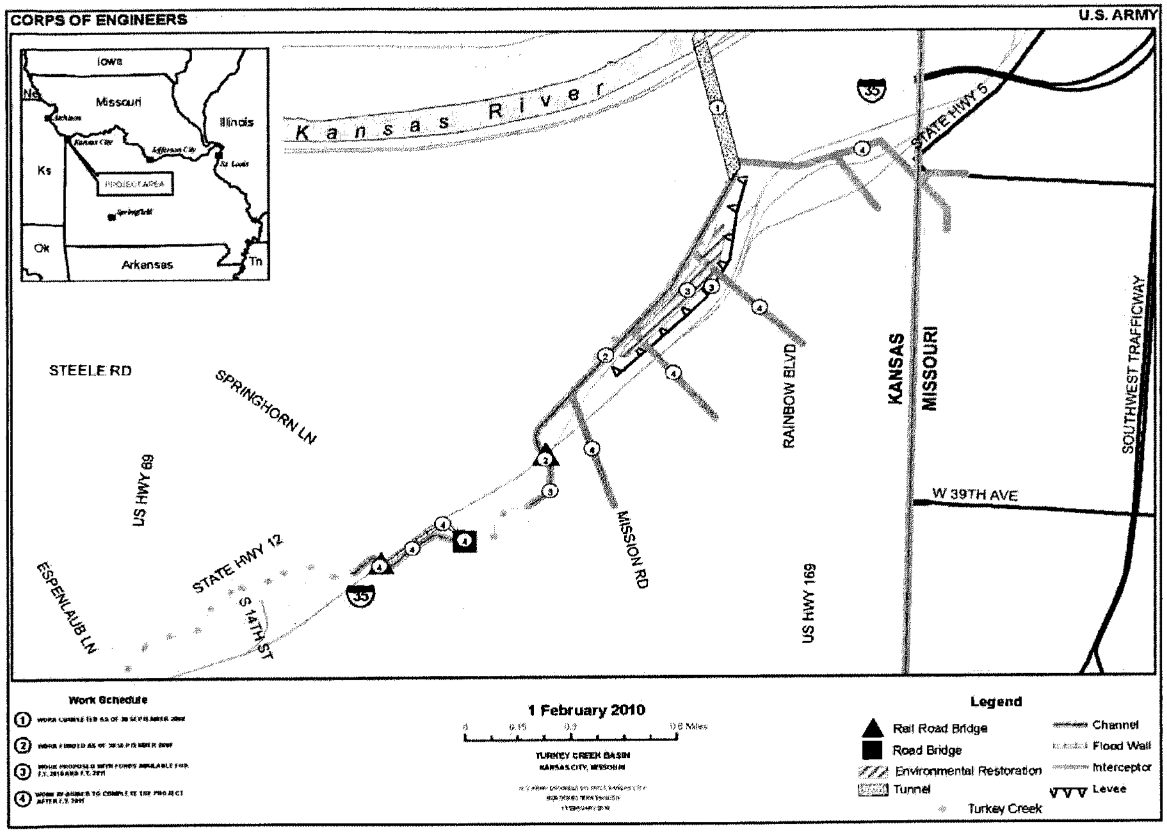
STATUS OF LOCAL COOPERATION: The City of Kansas City, Missouri and the Unified Government of Wyandotte County and Kansas City, Kansas expressed their intent to sponsor the project and a statement of financial capabilities in letters provided in January 2003 and November 2002 respectively. The Project Cooperation Agreement (PCA) was signed 17 July 2006, following completion of tunnel work initiated by the Sponsor.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $58,293,000 is an increase of $1,441,000 from the latest estimate ($56,852,000) presented to Congress (FY 2010). This change includes the following items.

Post Contract Award and Other Estimating Adjustments (Including contingency adjustments)	$1,441,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Revised Environmental Assessment, dated January 2003, concluded that no significant impacts, which would adversely affect the quality of the environment, were identified for the plan for flood protection measures for the lower Turkey Creek Basin. The District Commander signed a Finding of No Significant Impact February 4, 2003.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998. Preconstruction Engineering and Design (PED) was completed in September 2004. Funds to initiate construction were first appropriated in FY04.



Division: Northwestern
District: Kansas City
Turkey Creek Basin, KS & MO

1 Febr 2010
NW 1

NAVIGATION

INVESTIGATIONS

Study	Total Estimated Federal Cost $	Prior Allocation to FY 2008 $ $ $ $	Allocation FY 2008	Allocation FY 2009	Allocation FY 2010	Tentative Allocation to FY 2011 $	Additional Complete After FY 2011 $
Missouri River Degradation, MO Rulo, NE to mouth Kansas City District	3,668,000	0	295,000	84,000	556,000	600,000	2,133,000

The Missouri River between miles 340 and 400 in the Kansas City reach has exhibited significant degradation or downcutting of the riverbed. This phenomenon has been observed by evaluation of Missouri River gage data collected over a long period of time. In other reaches of the Missouri River from Rulo, Nebraska to St. Louis, MO, data indicates that the river bed is relatively stable. Concern has been expressed by local entities that continued degradation within this reach could destabilize the navigation structures, the bank stability, and impact local intake/discharge infrastructure (i.e., water supply intake structures, power supply intake structures, and other critical infrastructure along the river). Continued degradation could also impact Federal interest in the existing Kansas City's Metropolitan Flood Protection System. This study is authorized per Section 216, Flood Control Act of 1970 "Review of Completed Projects".

FY10 funds will be used to initiate the Feasibility study and to conduct initial reach screening, initial field investigations, and additional engineering analysis for determining baseline conditions and future conditions. USGS groundwater modeling of baseline and future conditions in critical reaches will begin. Initial data and inventories for economic studies will be gathered and project coordination and public involvement activities will be planned and conducted. The Feasibility Study includes detailed economic, technical and environmental assessments of potential corrective measures. The study team will quantify the nature of the problem and begin the process of identifying implementable solutions. Field investigations, surveys and detailed physical modeling will be conducted to provide information needed for evaluation of potential solutions. Economic, engineering, technical, and environmental assessments of potential corrective measures would be used to screen measures for potential effectiveness.

The funds requested for FY11 will be used to continue the feasibility phase of the study. The total estimated cost of the feasibility phase is $6,488,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests.

A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,912,000
Reconnaissance Phase (Federal)	424,000
Feasibility Phase (Federal)	3,244,000
Feasibility Phase (Non-Federal)	3,244,000

The feasibility study completion date is to be determined.

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2011

Division: Northwestern

Study		Total Estimated Federal Cost $	Allocation Prior to Alloc FY 2008 $	ation Alloc FY 2008 $	ation Alloc FY 2009 $	ation FY 2010 $	Tentative Allocation FY2011 $	Additional to Complete After FY 2011 $
Lower Columbia River Ecosystem	Annual Allocations	3,191,000	908,000	98,000	96,000	251,000	300,000	
Restoration, OR & WA	ARRA Allocation				150,000			
Portland District	Total Allocations	3,191,000	908,000	98,000 246,00	0 251,00	0	300,000	1,388,000

The Lower Columbia River Ecosystem Restoration Investigations study extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam; its estuary is classified as nationally significant under the National Estuary Program (NEP). The river divides the states of Oregon and Washington throughout this area. The study area includes a 43-foot deep-draft federal navigation channel from the mouth of the river to the Portland metropolitan area about RM 105 and a shallow draft channel upstream to RM 145. The Corps of Engineers' 125-year involvement with the Lower Columbia Basin system includes flood damage reduction, navigation, fish and wildlife, environmental restoration, hydropower, bank protection, recreation and water supply improvements.

Competing water resource requirements and significant environmental degradation has occurred within the Lower Columbia Basin system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of instream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case-by-case basis. Twelve different populations of anadromous salmonids that reproduce in the Columbia River Basin have been listed as threatened or endangered and they all use the estuary to some extent. Such listings have broad implications to existing water resource uses, and future developments. The updated proposed action for the Columbia River Federal Power System includes calling for planning and restoration efforts in the Columbia River estuary to help avoid jeopardy for these listed species. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

The purpose of this ongoing study is to investigate and recommend appropriate solutions to accomplish a comprehensive ecosystem approach for addressing restoration and water resource opportunities in the Lower Columbia River Basin and is not limited to the tidally influenced areas but is ecosystem-wide in scope. A comprehensive, long-range approach to address water resource problems and opportunities for the Lower Columbia River is needed. Some of the key areas to be addressed in this comprehensive study include wetland/riparian habitat restoration and stream and fisheries habitat improvement. It is imperative that reversals of these impactive trends occur now before further urban growth causes irreparable impairment of current water uses and ecosystem functions, and while regional interest and financial support is high. This comprehensive watershed study would serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program (NEP), six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens. The states of Washington and Oregon have jointly sponsored the study. The project has the potential to add up to 10,000 acres of Estuarine / Riverine emergent and forested wetland, consistent with the Lower Columbia River Estuary Partnerships Comprehensive Conservation Management Plan and Washington State recovery plans.

FY 2010 funds are being used to continue the feasibility phase to include development of shallow water habitat, benefit types, initial project screening and design development criteria and to coordinate with the sponsors on specific site selection and project development.

Lower Columbia River Ecosystem Restoration, OR & WA Continued

FY 2011 funds will be used to continue the feasibility phase to include continued screening and refining of potential actions and alternatives for the identified sites; developing costs and benefits for potential actions; providing more detailed planning, analysis and evaluation, including initial design, for long-range larger projects; Hydrologic Engineering Centers River Analysis System (HEC-RAS) modeling; initiating programmatic Environmental Impact Statement (EIS) for habitat restoration; developing programmatic project methodologies for pile structures; working closely with cost share partners to define specific program requirements; initiating and continuing design development to include ecosystem restoration, habitat creation, habitat enhancement, and potential habitat conservation.

The estimated cost of the feasibility phase is $6,000,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsors. All or part of the non-Federal share may be in-kind services. Sponsors have provided $1,261,456 in work-in-kind to date. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,191,000
Reconnaissance Phase (Federal)	191,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The reconnaissance study was completed in Aug 2001. The states of Oregon and Washington are jointly sponsoring the study and understand the cost sharing provisions associated with the feasibility phase of the study. The Feasibility Cost Share Agreement (FCSA) was executed 16 December 2003. The feasibility study completion date is to be determined.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation Alloc FY 2009 $	ation Alloc FY 2010 $	Tentative ation to FY 2011 $	Additional Complete After FY 2011 $
Mount St. Helens Environmental Restoration, WA Portland District	1,300,000	300,000	0	0	0	225,000	775,000

The Cowlitz River Basin study area, located in southwest Washington, includes the Toutle River from Spirit Lake at the base of Mt. St. Helens to the confluence of the Cowlitz with the Columbia River (river mile 68), about 55 miles downstream from Portland. The purpose of this restoration project would be to address the loss of wetland, riverine, riparian, and upland habitats due to the Mt. St. Helens eruption in 1980. Sediment retention structures, sediment stabilization basins, and dredged material disposal sites, constructed under emergency authorities to protect against flooding have served to block anadromous fish passage, and impact riverine spawning and rearing areas. Recovery of these habitats and their associated fish and wildlife species is unattainable without restoration actions to address impacts of constructed features on these rivers. The study will address wetland, riparian and upland habitat restoration, fish passage concerns and solutions, and riverine/stream habitat restoration measures.

The drastic reduction in native Endangered Species Act (ESA)-listed salmonid and steelhead populations has become a significant issue of concern in the Pacific Northwest. The curtailment or severe reduction in commercial, recreational, and treaty fisheries has impacted the regional economy. Restoration actions proposed in this study would serve to address salmonid recovery in the Cowlitz-Toutle River Drainage. Fish passage problems can be resolved by removal of barriers and construction of features to alleviate steep gradients or sheet flows. Riverine fisheries habitat can be restored by placement of structural features to form pools and riffles, provision of spawning gravel, construction of side channels to form rearing areas and restoration of riparian and wetland habitats adjacent to the streams. Restoration of wetland habitat can be attained by development of dikes and other features to create shallow impoundments, construction of water control features, plantings, and restoration of degraded wetlands.

Habitat restoration actions on the Toutle and Cowlitz Rivers affected by the Mt. St. Helens eruption would represent a net contribution to restoring the region's significant ESA-listed fisheries and wildlife resources. Restoration actions on these rivers, which have a history of high anadromous fisheries production, would aid repopulation of headwaters habitat and recovery of these populations. Restoration efforts would also benefit waterfowl and other waterbirds, neotropical migrants, resident fish and wildlife.

A coalition of interest groups, including the Washington State Department of Fish & Wildlife, Cowlitz Indian Tribe, and Friends of the Cowlitz, are in support of this study and intend to act as non-Federal sponsors. The study will address environmental restoration of the Cowlitz and Toutle Rivers, especially as it impacts ESA species, including salmon and steelhead. The Reconnaissance Study was completed in April 2007. FY 2011 funding would be used to initiate the feasibility level study. The feasibility study schedule for completion is to be determined.

Mount St. Helens Environmental Restoration, WA Continued

Mount St. Helens Environmental Restoration, WA Continued

The study authority is Section 452 of the Water Resources Development Act of 1999, PL106-53, dated August 17, 1999.

Summary of estimated study cost sharing is as follows:

Total Estimated Study Cost:	$2,300,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2011

Division: Northwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Puget Sound Nearshore Marine Habitat Restoration, WA Seattle District	9,673,000	4,445,000	1,329,000	1,434,000	341,000	400,000	1,724,000

The Puget Sound Nearshore study area is located along the marine shorelines and waters of Puget Sound, Washington. Over the years a significant amount of estuary wetlands, marsh, river delta, and marine shoreline habitat in Puget Sound has been destroyed or degraded through development, including a 70% loss of estuarine wetlands and 60% beach degradation. The degradation has contributed to a severe reduction in the number of fish and wildlife being produced or residing in the nearshore area. Numerous Endangered Species Act (ESA) listed species use the nearshore for forage, nesting, and/or migration. These include southern resident Orca whale, marble murrelet, stellar sea lion, sea otter, brown pelican, short-tailed albatross, Puget Sound bull trout, Puget Sound chinook, Hood Canal summer chum, and steelhead trout.

The study is identifying ways to restore nearshore habitat for fish and wildlife within the Puget Sound Basin, including all the major sub-basins - Hood Canal, South, Central and North Puget Sound, and the Straits of Georgia and Juan De Fuca. Twenty-one management measures, such as dike and seawall removal, beach restoration, and tidal marsh nutrient recycling, have been identified that address the fundamental causes of declining Puget Sound ecological health. This study is strongly supported by multiple local, state, and Federal agencies, and is part of an ongoing multi-agency effort to restore and improve habitat throughout Puget Sound. The Governor of the State of Washington reaffirmed this project as a priority restoration initiative for the state, including naming 11 Nearshore team members to her Puget Sound partnership and science committee, acknowledged the project's role in her 'Action Agenda" report, and provided $19M in early action project funds to initiate protection and restoration measures in the Estuary and Salmon Recovery Funding Program.

Fiscal Year 2010 funds are being used to complete the draft feasibility report for the Feasibility Scoping Meeting that documents Future-Without Project Conditions and the Preliminary Alternative Plans.

Fiscal Year 2011 funds will be used to begin to formulate feasible solutions for the tentatively selected plan. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$19,223,000
Reconnaissance Phase (Federal)	123,000
Feasibility Phase (Federal)	9,550,000
Feasibility Phase (Non-Federal)	9,550,000

The reconnaissance phase was completed in December, 2000. The feasibility study completion date is to be determined.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2011 Division: Northwestern

Study		Total Estimated Federal Cost	Allocation Prior to Alloc FY 2008	ation Alloc FY 2008	ation Alloc FY 2009	ation FY 2010	Tentative Allocation FY 2011	Additional to Complete After FY 2011
		$	$	$	$	$	$	$
Willamette River	Annual Allocation	2,383,000	1,006,000	161,000	0	381,000	220,000	
Environmental Dredging, Oregon	ARRA Allocation				603,000	12,000		
Portland District	Total Allocations	2,383,000	1,006,000 161,00	0 603,00	0 393,00	0	220,000	0

The Willamette River basin occupies a 12,000 square mile area in western Oregon. The 187-mile river begins in the Cascade and Coast Ranges and flows through local watersheds affected by logging, farming, and urban development before it empties into the Columbia River at Portland Oregon. From Willamette Falls at river mile 26.5 to the mouth at river mile 0, the river passes through the City of Portland where the waterfront is highly developed. Approximately 2 million people live within the lower Willamette River drainage from just above Willamette Falls to the river mouth. The lower Willamette River in Portland is also part of the Columbia and Lower Willamette Rivers federal navigation project. The project supports a thriving deep draft vessel shipping port in a regional economy where one in five jobs in the Portland/Vancouver area are related to export of grain, mineral resources or manufactured products. A yearly average of 7 million tons of grain is exported yearly through Portland, many through grain elevators on the Willamette River. The federal navigation project is maintained from river miles 0 to 14 and contributes to Portland being the tenth largest exporter in the nation. Petroleum products and mineral ores are the dominant imports at Willamette River facilities.

Industrial and urban activity in and along the waterway has adversely affected water and sediment quality. Degraded spawning and rearing and migratory habitats have contributed to declines of native populations of salmon, steelhead and trout. In March and April of 1999 the National Oceanic and Atmospheric Administration (NOAA) Fisheries listed five local fish populations as threatened under the Endangered Species Act, for the first time extending protection to populations in heavily urbanized areas within the Pacific Northwest. Two fish populations, the Lower Columbia River Chinook and Columbia River Chum salmon rear in urban streams. The Coastal Cutthroat spends much or all of their life in streams of the Columbia and lower Willamette up to Willamette Falls. Upper Willamette River Chinook and Steelhead rear and migrate through the lower Willamette River.

During the last few decades, much has been done to improve water quality in the river by reducing industrial and municipal point sources pollutant discharges. Efforts continue to improve water quality through eliminating combined sewer overflows and point and non-point pollution controls. Over the past few years the State of Oregon pursued cleanup of specific sites along the river that include impacted sediments. In 1998 the state began a comprehensive sediment management plan.

The Portland Harbor Sediment Management Plan and subsequent sediment investigation work plan is to investigate and potentially remediate sediments in a six-mile reach of the Portland Harbor using the State of Oregon Environmental Cleanup Law. In December 2000 the US Environmental Protection Agency chose to place the Portland Harbor on the National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), placing investigation of the harbor under joint management with the state but under a Federal lead. The state will be the lead agency for upland contaminant source control, and the US Environmental Protection Agency will be the lead for the project and in-water work. The joint Environmental Protection Agency (EPA) investigation and cleanup project will identify and address site-specific contaminant sources and clean up sediment contamination that exceeds health-based levels for the protection of human health and the environment. While these efforts represent a major step in the right direction, a significant opportunity exists for a cooperative venture to further leverage resources and focus on achieving restoration objectives through sediment remediation.

Willamette River Environmental Dredging, Oregon Continued

The study has been broadened from its original scope of environmental dredging to encompass environmental restoration on a watershed scale. The expanded objective of the study is to develop a publicly supported plan for ecosystem restoration actions throughout the Lower Willamette River including ecosystem restoration, water quality improvement and environmental dredging. The feasibility study is intended to analyze water-related ecosystem restoration opportunities within the Lower Willamette River system to identify, refine and prioritize potential restoration sites in the Willamette in coordination with other restoration and cleanup activities. Any environmental dredging portion of the project will examine opportunities to remediate orphaned contamination and, in the process, a comprehensive sediment management plan would be developed.

The City of Portland and the Port of Portland are the local sponsors and are the responsible parties within Portland Harbor, engaged in negotiations with the US Environmental Protection Agency to complete the ecosystem restoration, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial investigation and feasibility studies. The City of Portland has provided a letter of intent to partner in this cooperative venture to address ecosystem restoration. The City understands the cost sharing requirements of the feasibility and implementation phases of the potential project and the requirements for polluter responsibility and liability should any sediment remediation be identified as a portion of the project. Principal Responsible Parties will not be relieved of their liability should the project proceed to implementation.

Stakeholders include the Port of Portland, the City of Portland and state agencies, including the Oregon Department of Environmental Quality and the Oregon Department of Fish and Wildlife. Further collaboration with the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and other federal agencies would also occur.

Although there are two major Corps projects within the lower Willamette River, the navigation channel and the current deepening of the channel as part of the Columbia River Channel Improvements, neither project addresses improvement to sediment and water quality which could be accomplished by dredging. Both projects could benefit from improvements to sediment quality.

Fiscal Year 2011 funds will be used to complete the feasibility phase of the study. Receipt of FY 2010 funds in the amount of $393,000 reduces the FY 2011 requirement to $220,000. American Recovery and Reinvestment Act (ARRA) funding of $603,000 was received in FY 2009 and $12,000 is scheduled for receipt in FY2010. The estimated cost of the feasibility phase is $3,986,000, which will be shared on a 50-50 percent basis by the Corps and the non-Federal sponsors. All or part of the non-Federal share may be work-in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,376,000
Re connaissance Phase (Federal)	390,000
Feasibility Phase (Federal)	1,993,000
Feasibility Phase (Non-Federal)	1,993,000

The reconnaissance study was completed in December 2000 and was amended in July 2002 to include other restoration opportunities in the lower Willamette River. The Project Management Plan is based on a watershed approach and consistent with the work plan for the CERCLA remedial investigation. The Feasibility Cost Sharing Agreement was signed with the City of Portland in September 2003. The feasibility study is scheduled for completion in December 2011.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2011

Division: Northwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation Alloc FY 2009 $	ation Alloc FY 2010 $	Tentative ation to FY 2011 $	Additional Complete After FY 2011 $
Willamette River Floodplain Restoration, Oregon Portland District	4,786,000	1,793,000	83,000	57,000	137,000	153,000	2,563,000

The Willamette River is a major tributary of the Columbia River and the tenth largest river in the United States based on average annual flow. The Basin is located in Northwestern Oregon and comprises an area of approximately 12,000 square miles, or about 12 percent of the state of Oregon (United States Geological Survey [USGS], 1991). The General Investigations Study is investigating opportunities to restore natural floodplain function along the Willamette River and its tributaries.

The need for ecosystem restoration was increased when National Oceanic and Atmospheric Administration's (NOAA) Biological Opinion (BIOP) was issued on 11 July 2008. The BIOP concludes that project operations jeopardize Upper Willamette Chinook salmon and winter steelhead, listed as Threatened under the Endangered Species Act (ESA). Loss of aquatic habitat due to reservoir operations and historic bank protection measures undertaken by the Corps is seen as a critical factor in the decline of populations of those species. Reasonable and Prudent Alternatives (RPAs) in the BIOP call for the Corps to undertake efforts to restore degraded downstream habitat in the floodplain. The United States Fish and Wildlife Service's (USFW) Biological Opinion issued 11 July 2008 includes Reasonable and Prudent Measures (RPMs) to minimize impacts for resident fish species; Oregon Chub and Bull Trout. The Willamette River does not meet Clean Water Act standards for temperature, in part due to reservoir operations. River temperatures are another limiting factor for threatened or endangered salmonids. The Corps is working cooperatively with Oregon Department of Environmental Quality to develop temperature Total Maximum Daily Loads (TMDLs) for the Willamette River. Shading associated with restored riparian forests and increased groundwater flows resulting from increased floodplain connectivity are viewed as important measures for helping reduce river temperatures. The feasibility study, scheduled for completion in FY 2011, and potential projects resulting from it are viewed as an important vehicle for implementing such measures. The Willamette River is designated as an American Heritage River (AHR). Section 202 of the Water Resources Development Act of 2000 (P.L. 106-541, 11 December 2000) and Section 729 of the Water Resources Development Act of 1986 (100 Stat.4164) authorized the Secretary of the Army to assess the water resources needs of river basins and watersheds of the United States. The Willamette River Basin was identified as one of five priority watersheds.

The recommended plan from the Feasibility Study will provide opportunities to modify existing floodplain features in the Willamette Valley to restore natural wetlands, promote ecosystem restoration, and reduce flood damages. The recommended plan will be fully developed during the Pre-Construction, Engineering, and Design (PED) phase to refine the implementation, schedule, and prioritization of key features (based on the non-Federal Sponsor's acquisition of properties), such as stream reconnection, recreation of riparian habitat, removal of invasive species, strategic placement of large wood, and restoration of old gravel mining pits for wildlife as well as ESA listed species. The initial area evaluated includes the Middle Fork and Coast Fork of the Willamette River. There is potential to restore up to 70 miles along these rivers, including riverine aquatic bed, forested wetland and riparian woodland habitat. A rough order of magnitude cost estimate for these initial restoration measures range from $25M to $30M.

Willamette River Floodplain Restoration, Oregon, Continued,

The Fiscal Year 2010 funds are being used to continue the Feasibility phase. Specific actions include providing oversight and review of National Environmental Policy Act (NEPA) documents, developing the Real Estate Plan, alternatives analysis, cost analysis, design, and the draft Feasibility Report, along with coordination and participation in public outreach.

Fiscal Year 2011 allocation will be used to complete the Feasibility phase ($16,000) and to initiate the PED Phase ($137,000) including preparation of a Design Documentation Report (DDR) to refine habitat restoration design, initiation of land acquisition, a value engineering study, and preparation of a cost share agreement. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 75% Federal and 25% non-Federal. Any adjustments necessary to bring the non-Federal contribution in line with the project cooperation agreement will be accomplished in the first year of construction. A summary of the study cost sharing is a s follows:

Total Estimated Study Cost	$5,686,000
Re connaissance Phase (Federal)	392,000
Feasibility Phase (Federal)	1,694,000
Feasibility Phase (Non-Federal)	1,694,000
PED Phase (Initial Federal Share 75%)	2,700,000
PED Phase (Initial Non-Federal Share 25%)	900,000

The reconnaissance study (Section 905(b) Analysis) was completed in April 1999. The Feasibility Cost-Sharing Agreement was executed in January 2004 and is scheduled for completion in 2011. The PED completion date is to be determined.

APPROPRIATION TITLE: Investigations, Environment, Fiscal Year 2011

Division: Northwestern

Study		Total Estimated Federal Cost	Allocation Prior to Alloc FY 2008	ation Alloc FY 2008	ation FY 2009	Allocation FY 2010	Tentative Allocation FY 2011	Additional To Complete After FY 2011
		$	$	$	$	$	$	$
Yellowstone River Corridor, Montana	Annual Allocation	4,759,000	2,235,000	313,000	430,000	179,000	200,000	
Omaha District	ARRA Allocation				435,000			
	Total Allocations	4,759,000	2,235,000	313,000	865,00 0	179,00 0	200,000	967,000

A comprehensive study of the Yellowstone River corridor from Gardiner, Montana, to the confluence of the Missouri River to determine the hydrologic, biological and socioeconomic cumulative impacts as authorized by Section 431 of Water Resources Development Act of 1999. The Yellowstone River corridor, defined linearly as approximately 600 river miles in Montana and North Dakota and laterally from the channel as the upper riverine terrace formed from historic fluvial processes, has been subject to natural and human interactive factors affecting sustainable use and conservation of resources. Flooding in 1996 and 1997 caused damage to private landowners and public facilities with a subsequent increase in requests for regulatory approvals under Section 10 of the Rivers and Harbors Act/Section 404 of the Clean Water Act as well as for Corps of Engineers emergency technical assistance. Given the natural and historic heritage of this river corridor, issues regarding the long-term effects of bank stabilization and the potential for significant adverse cumulative impacts have been raised by public and private sector and environmental interests. In contrast, issues regarding an individuals right to protect personal property and more local control of floodplain/riverine activities have been evident from the landowner and local government interest groups. The primary goal of this study is to develop a set of publicly supported river corridor management recommendations that address effects of channel modifications on the human community and riparian ecosystem along the Yellowstone River corridor. The corridor study will be used to 1) develop the formulation of management and protection objectives; 2) evaluate trade-offs among objectives; 3) assess environmental impacts as a factor in determining the acceptability of management objectives as contrasted with potential long-term riparian deterioration.

A related Upper Yellowstone River Study was directed by the FY 99 Energy and Water Development Appropriation Bill, Senate Report 105-206. This special area management plan study from Gardiner to Springdale, MT, a reach of about 85 miles, is assessing the long-term effects of streambank stabilization on that reach of the river. The Yellowstone River Corridor Study will incorporate results from the ongoing Upper Yellowstone River technical studies. The Upper Yellowstone Study should be finalized prior to completion of the entire corridor study.

The remaining 515 miles of the corridor will be subdivided into representative river reaches (totaling approximately 250 miles), which will be studied in detail. The sub-reaches will be based on hydrogeomorphic characteristics and comparative analyses of altered vs. unaltered reaches will be conducted. These comparison studies will form the basis for analyzing the cumulative effect of past, present, and potential future land use changes. The cumulative effects analysis will form the basis for formulation of management and protection objectives in concert with the local public/private sector interest groups. The Yellowstone Corridor Study has strong potential to lead into future ecosystem restoration projects and sustainable flood damage reduction projects that could be pursued under existing Corps authorities.

The Feasibility Cost Sharing Agreement (FCSA) was signed in January 2004. The Local Sponsor is Custer County Conservation District, the fiscal agent for the Yellowstone River Conservation District Council (YRCDR). The sponsor has provided $1,000,000 in in-kind services through Fiscal Year 2009.

Yellowstone River Corridor, Montana Continued

Fiscal Year 2010 funds are being used to continue the feasibility study.

Fiscal Year 2011 will be used to continue the feasibility phase of the study, and would be utilized to continue hydraulic floodplain modeling, continue a comprehensive study of wetlands, and conduct a comprehensive analysis of economic factors related to the Yellowstone River. The preliminary estimated cost of the feasibility phase is $5,800,000, which is to be shared on a 75-25 percent basis by Federal and non-Federal interests. All of part of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 6,209,000
Reconnaissance Phase (Federal)	409,000
Feasibility Phase (Federal)	4,350,000
Feasibility Phase (Non-Federal)	1,450,000

In accordance with Section 431 of Public Law 106-53, this study is to be performed in consultation with the United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Natural Resources Conservation Services (NRCS) and with full participation of the State of Montana, and the tribal and local entities, and provide for public participation. Funding for the consultation efforts of the USFWS and NRCS during the study should be obtained by each respective agency.

The reconnaissance phase was completed in January 2004. The feasibility study completion date is to be determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Chief Joseph Dam Dissolved Gas Abatement, Washington (Continuing)

LOCATION: Chief Joseph Dam is located on the Columbia River, 545 miles upstream of the mouth, 51 miles downstream of Grand Coulee Dam, 1-1/2 miles upstream from the town of Bridgeport, Washington, between Douglas and Okanogan Counties.

DESCRIPTION: The project will add flow deflectors to the spillway and implement operational changes, such as spill patterns and volumes to reduce dissolved gas levels. The flow deflectors will reduce total dissolved gas (TDG) for a given spill volume. Work was initiated in response to the 2000 NMFS Biological Opinion (BiOp) on the Federal Columbia River Power System (FCRPS) operations which states: "The Corps shall continue to develop and construct spillway deflectors at Chief Joseph Dam by 2004 to minimize total dissolved gas levels associated with system spill." Completion of this work was carried over into the 2004 BiOp for the FCRPS.

AUTHORIZATION: 1946 River and Harbor Act and the 1958 Fish and Wildlife Coordination Act.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. Environmental restoration costs are not subject to formal benefit calculations.

TOTAL BENEFIT – COST RATIO: NA

INTIAL BENEFIT-COST RATIO: NA

BASIS OF BENEFIT – COST RATIO: NA

SUMMARIZED FINANCIAL DATA:

		Accumulated Percent of Estimated Federal Cost	Status (1 Jan 2010)	Percent Complete	Physical Completion Schedule
Estimated Federal Cost	$26,116,000		Entire Project	40%	To Be Determined
Estimated Non-Federal Cost	$0				
Cash Contributions					
Other Costs					
Total Estimated Project Cost	$26,116,000				
Allocations to 30 September 2007	$19,096,000				
Allocation for FY 2008	4,952,000				
Allocation for FY 2009	923,000				
Recovery Act Allocations To Date	0				

SUMMARIZED FINANCIAL DATA:

		Accumulate Percent of Estimated Federal Cost	Status (1 Jan 2010)	Percent Complete	Physical Completion Schedule
Conference Allowance for FY 2010	945,000				
Allocations for FY 2010	945,000				
Allocations through FY 2010	25,916,000	99%			
Allocation requested for FY 2011	200,000	100%			
Programmed Balance to Complete after FY 2011	0				
Unprogrammed Balance to Complete after FY 2011	0				

PHYSICAL DATA:
Existing Project -
Concrete gravity dam 240 feet high
Powerhouse has 27 generators

Reservoir Capacity –
Gross capacity, 593,000 acre-feet
Power pondage, 38,800 acre-feet

Power Installation	Power Plant Nameplate Capacity Rating	Power Plant Maximum Capacity Rating
Original Units 1-16	1,024,000 KW	N/A
Additional 11 units	1,045,000 KW	1,201,750 KW
Uprate Units 1-16	204,160 KW	1,412,384 KW
Total Units 1-27	2,273,160 KW	2,614,134 KW (Maximum power plant output is limited to 2,525,000 KW by hydraulic factors.)

JUSTIFICATION: In recent years, the combination of higher than average flow conditions requiring flood control spills and Endangered Species Act (ESA) efforts requiring spill for fish passage have magnified the dissolved gas supersaturation issue throughout the Columbia River system. Dissolved gas is toxic to fish, producing symptoms similar to "the bends" in humans, and can be fatal. Current state and federal water quality standards for total dissolved gas (TDG) concentrations have frequently been exceeded downstream of Chief Joseph Dam. In particular, very high levels of TDG supersaturation were observed below Chief Joseph and Grand Coulee Dams in 1996, 1997 and 2002. High levels of TDG produced at one dam tend to persist far downstream. Chief Joseph Dam is the upper boundary for the geographic range of the Upper Columbia River Evolutionary Significant Unit, where Steelhead (18 August 1997) and Spring Chinook (16 March 1999) have been listed as endangered. The construction of deflectors on the dam spillway monoliths in tandem with system operational changes for spill is expected to solve the problem.

Division: Northwestern District: Seattle Chief Joseph Dam Dissolved Gas Abatement, Washington

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FISCAL YEAR 2010: The current amount is being applied as follows:

Complete surge avoidance testing and develop the spillway operating plan ($205,000), resolve the spray issues on the right and left banks ($100,000), conduct a post deflector construction topographic survey of the stilling basin and tailrace and complete the uplift after-action report ($20,000), complete the design documentation report ($190,000), and remove stilling basin debris resulting from the deflectors ($430,000).

FISCAL YEAR 2011: The requested amount will be applied as follows:

Complete spray protection; debris removal; development of operational plan and project close-out.	$200,000

NON-FEDERAL COST: This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Pacific Northwest Federal power marketing agency, is required to establish system rate levels adequate to recover all capital investment costs for Federal generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. Costs allocated to power are reimbursable. BPA submits annual financial statements to Congress on repayment status and periodically recommends rate adjustments for meeting repayment obligations.

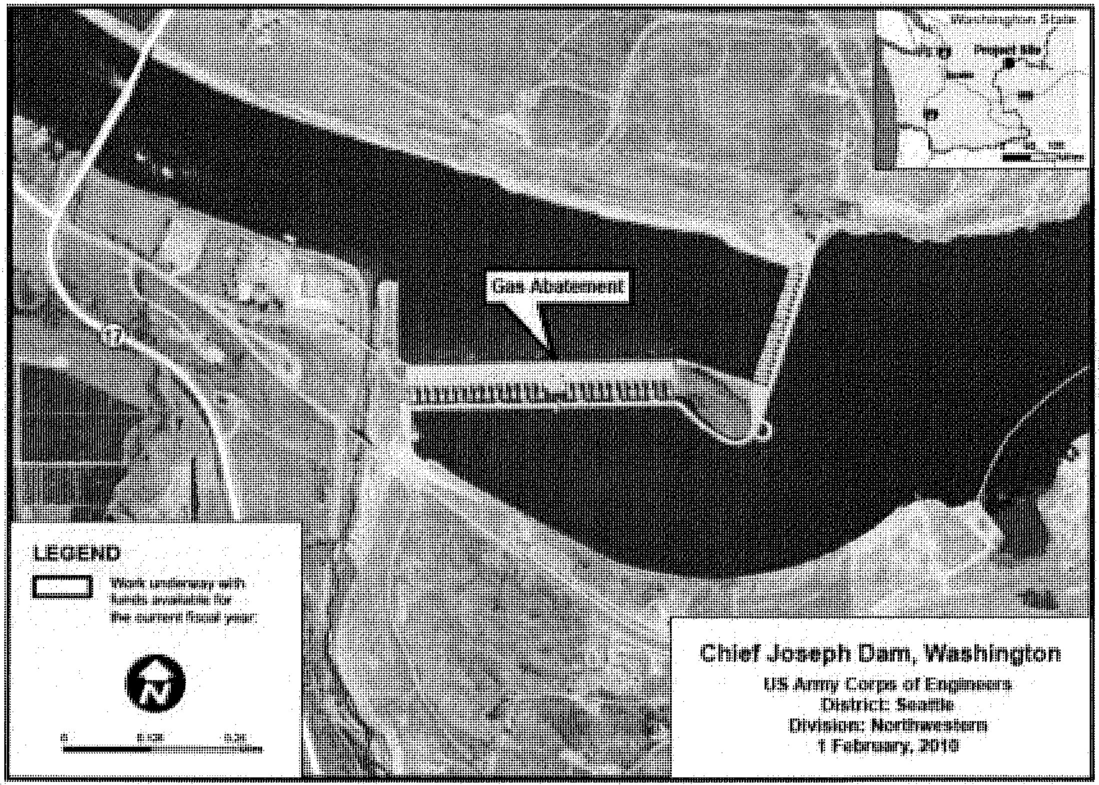
STATUS OF LOCAL COOPERATION: None required. Chief Joseph Dam is an operational Federal project with no local sponsorship. The dissolved gas abatement work is supported by the downstream power producing agencies, the Regional Fish Managers, the System Configuration Team, and other public and private resource organizations.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $26,116,000 is a decrease of $2,182,080 from the last estimate ($28,298,020) presented to Congress (FY2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement for the original project was filed with the Council of Environmental Quality on 2 February 1972. A Supplemental Environmental Impact Statement for the additional units was filed on 17 July 1975. Environmental restoration is generally identified by existing Environmental Impact Statements. An EA/FONSI has been completed for the gas abatement project and was signed on 5 December 2000, along with a Planning Aid Letter from USFWS. Additional environmental documentation pursuant to NEPA will be accomplished as necessary to cover the construction of the spillway flow deflectors.

OTHER INFORMATION: $1,440,000 in O&M funds were expended from FY 1998 through FY 2000 to investigate alternatives to lower the Total Dissolved Gasses, and to prepare the General Reevaluation Report which was approved on 12 September 2000. These costs are not part of the project.

The project is listed as “Action 136” in the NMFS 2000 Biological Opinion and was reviewed in the 3-year checkpoint evaluation of the Biological-Opinion in 2003.



Division: Northwestern District: Seattle Chief Joseph Dam Dissolved Gas Abatement, Washington

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APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Columbia River Fish Mitigation, Washington, Oregon, & Idaho (Continuing)

LOCATION: Lower Columbia, Snake, and Willamette Rivers.

DESCRIPTION: The mitigation consists of: (1) Adult and juvenile fish bypass improvements at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor on the Snake River; McNary, John Day, The Dalles, and Bonneville on the Columbia River, avian predation controls, and salmon survival research and development in the Lower Columbia River estuary and near-ocean environments, (2) A mitigation analysis, prepared in cooperation with regional interests, to evaluate additional measures to increase fish survival in the Columbia and Snake Rivers. The mitigation analysis provides the analytical process for consideration and implementation of Federal actions necessary to support regional initiatives and Federal salmon and resident fish ESA requirements. (3) Beginning in FY2008, evaluations, design and construction of measures to address the impacts on ESA-listed species of salmon and steelhead of construction and operation of 13 dams on the Willamette River. (4) Increased efforts to improve juvenile and adult pacific lamprey passage to boost recovery and avoid additional ESA listings within the FCRPS was initiated in FY 2009.

AUTHORIZATION: 1933 Federal Emergency Administration of Public Works; 1935, 1945 and 1950 River and Harbor Acts; 1937 Bonneville Project Act; 1938, 1948, 1950 and 1954 Flood Control Acts; WRDA 1986, Section 906(b)(1); WRDA 1996, Section 511, as amended by WRDA 1999, Sec.582 and WRDA 2007, Sec. 5025.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable. Mitigation is incrementally justified through consideration of costs and non-monetary and monetary benefits; accordingly, a benefit-cost ratio is not computed.

TOTAL BENEFIT-COST RATIO: Not applicable
INITIAL BENEFIT-COST RATIO: Not applicable
BASIS OF BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA			
Estimated Appropriation Requirement (Corps of Engineers)		$ 2,100,000,000	
Estimated Other Federal Costs (Bonneville Power Administration)		$9,670,000	
Total Initial Federal Cost		$2,109,670,000	
Future Non-Federal Reimbursement	$1,719,000,000		1/ 2/
Estimated Federal Cost (Ultimate)	$381,000,000		

ACCUM % OF EST FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
	Entire Project	60%	2023

Division: Northwestern

District(s): Portland / Walla Walla

SUMMARIZED FINANCIAL DATA (Continued)

Estimated Non Federal Cost		$1,719,000,000	
Cash Contributions	0		
Other Costs	0		
Reimbursements, Power	$1,719,000,000		
Total Estimated Project Cost		$2,109,670,000	
Allocations to 30 September 2007		$1,180,470,702	
Allocation for FY 2008		$82,164,000	
Allocation for FY 2009		$83,256,000	
Recovery Act Allocations to Date		$29,948,000	
Conference Allowance for 2010		$80,693,000	
Allocation for 2010		$80,693,000	
Allocations through FY 2010		$1,456,531,702	69%
Allocation Requested for 2011		$137,615,000	76%
Programmed Balance to Complete after FY 2011		$505,853,298	
Unprogrammed Balance to Complete after FY 2011		$0	

1/ Allocation for actual reimbursement by the Bonneville Power Administration is made as each element is placed in service.
2/ Includes an estimate of the non-Federal share for Willamette program, based on preliminary cost estimate and potential project locations and actions. Will be updated following feasibility evaluations and actual implementation decisions and costs.

PHYSICAL DATA

Lower Granite Lock & Dam
- Juvenile fish bypass system
- Extended length screens
- Juvenile fish transport facilities
- Barge moorage
- Fish transport barges

Spillway flow deflectors
- Removable spillway weir
- Juvenile passage monitoring facilities

Adult fish ladders
- Adult passage monitoring facilities

McNary Lock & Dam
- Juvenile fish bypass system
- Extended length screens
- Juvenile fish transport facilities
- Juvenile passage monitoring facilities
- Spillway flow deflectors

Spillway surface bypass weirs
- Adult fish ladders
- Adult passage monitoring facilities

Bonneville Lock and Dam
- Juvenile fish bypass system
- Independent station service
- Juvenile fish monitoring facilities
- Corner collector surface bypass
- Spillway flow deflectors
- Sea lion barriers
- Adult fish ladders
- Adult passage laboratory

Adult passage monitoring facilities
Lamprey passage facilities
Forebay guidance curtain

PHYSICAL DATA (Continued)

Little Goose Lock & Dam
- Juvenile fish bypass system
- Extended length screens
- Spillway flow deflectors
- Spillway surface bypass weir
- Juvenile fish transport facilities
- Adult fish ladders

Lower Monumental Lock & Dam
- Juvenile fish bypass system
- Juvenile fish transport facilities
- Spillway flow deflectors
- Removable spillway weir
- Juvenile passage monitoring facilities
- Adult fish ladders

Ice Harbor Lock & Dam
- Juvenile fish bypass system
- Spillway flow deflectors
- Removable spillway weir
- Juvenile passage monitoring facilities
- Adult fish ladders

John Day Lock & Dam
- Juvenile fish bypass system
- Juvenile passage monitoring facilities
- Spillway flow deflectors
- Spillway surface bypass weirs
- Adult fish ladders
- Mitigation hatcheries

The Dalles Lock & Dam
- Tailrace spill wall
- Spillway improvements
- Sluiceway passage
- Adult fish ladders

Lower Columbia River estuary
- Avian Predation Reduction
- Estuary Studies

Mitigation Analysis
- Gas abatement
- Adult passage
- Turbine Passage
- Project passage efficiency and survival studies
- Prototype facility studies
- Delayed & multiple bypass mortality studies
- Temperature impacts

Willamette Valley Projects
- Evaluations (Mitigation Analysis)
- Adult trap and hold facilities
- Temperature control facilities
- Juvenile passage facilities

JUSTIFICATION: Columbia River Fish Mitigation provides mitigation for the impact of Corps' dams on migrating salmon. Completed and scheduled mitigation measures are based on analyses completed to date. Mitigation measures are being considered as a result of the Northwest Power Planning Council's regional rebuilding efforts for upriver salmon stocks, the NMFS listing of salmon as threatened/endangered, the NMFS Biological Opinions on operation of the Federal Columbia River Power System (FCRPS) issued 1995, 1998, 2000, 2004 and 2008 (including actions resulting from the Administration's review of the 2008 BiOp as described in the September 2009 Adaptive Management Implementation Plan), the 2008 Columbia Basin Fish Accords, and the 2008 USFWS and NMFS Willamette River Basin BiOp . The current scope of this project has been adjusted to be in accord with biological opinions. The Mitigation Analysis, begun in FY 1991, is contributing to a regionally cooperative process for analyzing potential new measures.

In response to Section 582 of WRDA 1999 and in recognition of the effects of the hydropower system operations on the Columbia River estuary and concomitant impacts on salmonids, efforts began in FY 2001 to address habitat and avian predation issues in the estuary. In FY2008, under the authority of Section 906b of WRDA 1986, the Corps initiated actions to relocate a portion of the Caspian Tern colony in the estuary to reduce predation on migrating juvenile salmonids.

In response to ongoing ESA consultation, the Corps proposed to initiate a study to identify impacts, and identify and recommend appropriate structural modifications in the Willamette River Basin to address impacts on listed species resulting from the operation of the 13 dams in the basin beginning in FY2008. A BiOp was issued by NMFS and USFWS in July 2008.

As a result of the May 2008 Columbia Basin Fish Accords, increased efforts to investigate and improve juvenile and adult Pacific lamprey passage and survival was initiated in FY2009.

FISCAL YEAR 2010: Funds are being applied to address the highest priority actions to comply with the NMFS 2008 BiOp requirements for the FCRPS, the NMFS and USFWS 2008 BiOp for the Willamette River Basin, and the 2008 Columbia Basin Fish Accords. Current execution plans are for funds to be applied on major measures as follows:

Lower Granite Bypass improvements Adult ladder improvements Configuration and Operations Plan	$745,000
Little Goose Surface bypass weir Outfall relocation Configuration and Operations Plan	$ 415,000
Lower Monumental Outfall relocation Removable spillway weir Configuration and Operations Plan	$1,650,000
Ice Harbor Unit 2 Replacement Spillway chute/deflector modification	$ 3,030,000
McNary Surface bypass Outfall relocation Juvenile fish facility debris mitigation	$ 2,530,000
Willamette Valley Projects Mitigation analysis Trap and haul facilities Fish release sites	$ 9,100,000
John Day Surface bypass Adult ladder improvements Avian predation deterrents Performance verification	$7,365,000
The Dalles Emergency adult ladder aux water supply Spill wall construction Performance verification	$24,900,000
Bonneville B2 orifice modifications Performance verification	$ 5,495,000
Lower Columbia River Estuary Estuary Studies Avian predator relocation	$ 8,229,000
Mitigation Analysis Lamprey passage improvement development, Tagging studies, Fall Chinook studies, Adult passage and survival studies Delayed mortality, Turbine passage survival PIT tag recovery, Post –FCRPS survival study	$17,234,000
	==========
Total	$ 80,693,000

FISCAL YEAR 2011: The requested amount will be applied to address the highest priority actions to comply with the NMFS 2008 BiOp requirements for the FCRPS, the NMFS and USFWS 2008 BiOp for the Willamette River Basin, and the 2008 Columbia Basin Fish Accords. Current execution plans are for funds to be applied on major measures as follows (Specific amounts are tentative. See "Other Information" below):

Lower Granite Bypass improvements Adult Ladder Improvements	$3,025,000	John Day Surface bypass Adult ladder improvements Performance verification	$14,925,000
Little Goose Performance verification	$ 3,000,000	The Dalles Emergency adult ladder aux water supply Spill wall construction Performance verification	$6,325,000
Lower Monumental Outfall relocation Performance verification	$13,500,000	Bonneville B2 orifice modifications B2 gate hoist modification Performance verification	$ 4,280,000
Ice Harbor Unit 2 Replacement Spillway chute/deflector modification Performance verification	$ 3,700,000	Lower Columbia River Estuary Estuary Studies	$ 8,305,000
McNary Surface bypass Outfall relocation Juvenile fish facility debris mitigation	$ 19,500,000	Mitigation Analysis Lamprey passage improvement development, Tagging studies, Fall Chinook studies, Adult passage and survival studies Delayed mortality, Turbine passage survival PIT tag recovery, Post –FCRPS survival study	$31,055,000
Willamette Valley Projects Mitigation analysis Trap and haul facilities Fish release sites	$30,000,000		==========
		Total	$ 137,615,000

NON-FEDERAL COST: Costs eventually determined to be allocable to power are reimbursable. The dams being modified and analyzed are a part of the Federal Columbia River Power System (FCRPS). Bonneville Power Administration (BPA), the Federal Power Marketing Agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations.

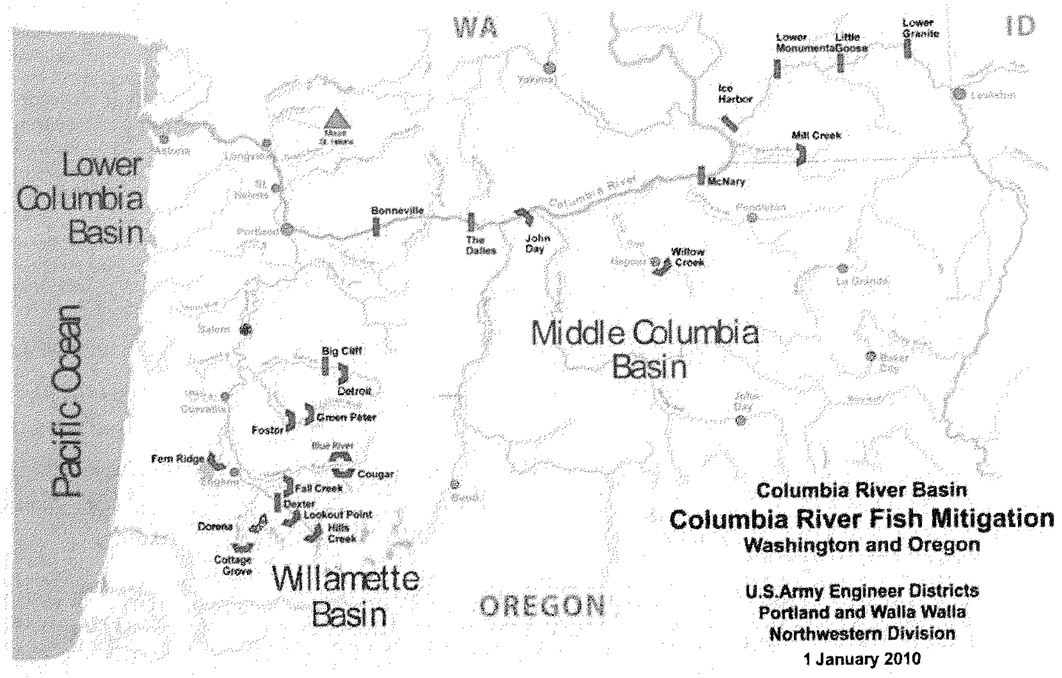
STATUS OF LOCAL COOPERATION: None required.

COMPARISON OF FEDERAL COST ESTIMATE: The total Initial Federal cost estimate of $2,109,670,000 remains unchanged from the last estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Mitigation construction may be covered by existing environmental impact statements. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) will be held and biological assessments prepared as necessary to conform with requirements of NEPA and of the Endangered Species Act (ESA).

OTHER INFORMATION: Funds to initiate construction were appropriated in Fiscal Year 1988.

Potential Changes: Salmon rebuilding initiatives for Corps implementation have been adopted by the Northwest Power Planning Council (Council) as part of the amended Columbia River Basin Fish and Wildlife Program and are established through ESA consultation and documented in the NMFS and USFWS Biological Opinions. In response to the biological opinions, the Corps has developed and continues to update implementation plans. The Council, NMFS and USFWS emphasize adaptive management – incorporating changes based on new research, monitoring and regional prioritization decisions. This adaptive management approach is regionally recognized and accepted.



Division: Northwestern

District(s): Portland / Walla Walla

1 February 2010

Columbia River Fish Mitigation,
Washington, Oregon, & Idaho

NWD-59

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Duwamish and Green River Basin, Washington (Continuing)

LOCATION: The project is located in the Duwamish/Green River Basin, in King County in the Puget Sound Basin in northwestern Washington State.

DESCRIPTION: The project will provide 45 ecosystem restoration sites throughout the 492 square mile Duwamish and Green River Basin. The project will create 1900 acres of new habitat and add significant habitat for three Endangered Species Act (ESA) listed species: Bull trout, Steelhead trout and Chinook salmon. Habitat improvements will occur over 200 miles of river and streams with features including stream restoration, levee removal to open up adjacent flood plains, reconnection of abandoned side channels, providing wood and gravel for fish habitat and other restoration actions.

AUTHORIZATION: Section 101 (b) (26) of the Water Resources Development Act of 2000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable

INITIAL BENEFIT-COST RATIO: Not applicable

BASIS OF BENEFIT-COST RATIO: Not applicable.

SUMMARIZED FINANCIAL DATA:			Accumulated Percent of Estimated Federal Cost
Estimated Federal Cost		$142,886,000	
Estimated Non-Federal Cost		68,517,000	
Cash Contributions	3,300,000		
Other Costs	65,217,000		
Total Estimated Project Cost		$211,403,000	
Allocations to 30 September 2007		$ 3,556,000	
Allocation for FY 2008		1,626,000	
Allocation for FY 2009		1,915,000	
Recovery Act Allocations To Date		1,684,000	
Conference Allowance for FY 2010		2,456,000	
Allocation for FY 2010		2,456,000	
Allocations through FY 2010		11,237,000	13%
Allocation requested for FY 2011		5,500,000	20%
Programmed Balance to Complete after FY 2011		126,149,000	
Unprogrammed Balance to Complete after FY 2011		0	

Status (1 Jan 2010)	Percent Complete	Physical Completion Schedule
Entire Project	6%	To Be Determined

Division: Northwestern District: Seattle Duwamish and Green River Basin, Washington

1 Febr 2010 NW

PHYSICAL DATA: Not applicable

JUSTIFICATION: The Green Duwamish Ecosystem Restoration project (ERP) is critical to restoring habitat for the Chinook salmon, Stealhead, and Bull trout. The importance of the Green Duwamish ERP is reflected in its inclusion as key elements in the Green/Duwamish Salmon Habitat Restoration Plan prepared in response to listing of Chinook salmon under ESA in 1999. Original estimate for the restoration of the basin would take 10 years to complete the $195 million project. The proposed restoration focuses on improving the overall health of the Duwamish/Green River Basin to over 200 miles of river and streams and 1900 acres of new habitat, enhancing and restoring fish and wildlife while maintaining existing flood protection within the basin. Of special interest are the habitat needs of the listed endangered species Chinook salmon and Bull trout. Potential projects were proposed and screened by the Watershed Restoration Group, composed of the local sponsor, stakeholders, scientists, and Corps officials. Projects were scored according to an environmental evaluation criteria: 1) effectiveness of project in addressing one or more limiting factors, including barriers to fish passage, reduction in channel forming flows, loss of channel diversity in the lower river, loss of estuarine and floodplain habitat, reduction in large woody debris, loss of sediment sources, and increase in water temperature; 2) scale, size, and effect; 3) technical and political feasibility; and 4) potential for wildlife benefits. 45 sites were evaluated which incorporated varying levels and degrees of restoration in an incremental cost analysis. The Corps received input to incorporate local needs and direction in the development of site-specific restoration criteria supportive to local goals. Assessing and incorporating the desires of stakeholders into the restoration plan will continue throughout project development. The project is an integral part of the Water Resource Inventory Area (WRIA) 9 recovery plan and the Regional Recovery Plan.

FISCAL YEAR 2010: The current amount is being applied as follows:

Initiate and complete construction Lake Meridian Outlet	$2,200,000
Initiate Construction for Riverview	200,000
Initiate Plans and Specs for Phase 1 Mill Creek	56,000
TOTAL	$2,456,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Site 1 Monitoring	20,000
Mill Creek Phase 1 Initiate Construction	2,000,000
Mill Creek Phase II Design	200,000
Big Spring Creek II Design	200,000
Big Spring Creek III Design	200,000
Spring Brook Creek Initiate Design	200,000
Upper Russell Construction	2,380,000
Lower Russell Initiate Design	300,000
TOTAL	5,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

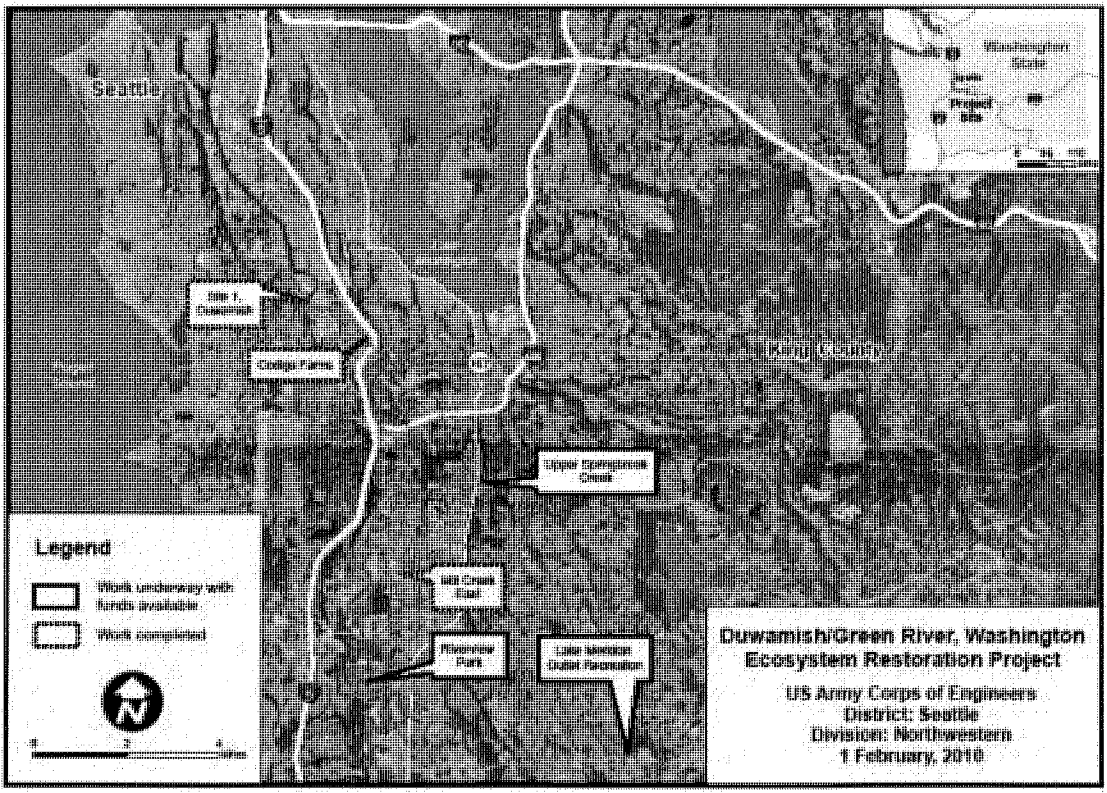
	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and relocations	$65,217,000	
Pay 35% of the costs allocated to fish and wildlife enhancement, and pay 100% of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	3,300,000	To Be Determined
Total Non-Federal Costs	$68,517,000	To Be Determined

STATUS OF LOCAL COOPERATION: The primary local sponsor of this project has been King County with the full support of local cities; the Muckleshoot Tribe; the Suquamish Tribe; state and local agencies; 16 municipal cities, federal resource agencies, Trout Unlimited and other special interest groups and interested parties. The before mentioned groups remain active in development of the project. The first Project Cooperation Agreement (PCA) was signed by the City of Kent in November 2004 for the Meridian Valley Project. A second PCA was signed 10 August 2006 by the City of Kent for the Lake Meridian Outlet Project. The Project Partnership Agreement for Site 1 was signed 21 July 2010 by King County. Completed construction of Site 1 December 2009; close out of project with local sponsor is immanent.

COMPARISON OF FEDERAL COST ESTIMATE: The current estimated Federal cost of $142,886,000 is unchanged from the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Programmatic Environmental Impact Statement was completed in December 2000.

OTHER INFORMATION: The Feasibility Study was initiated in 1998 and completed in November 2000. The Chief of Engineer's report was signed on 29 December 2000. Post construction monitoring between 2 and 10 years has been approved for individual sites to insure project is achieving desired environmental outputs. Funds to initiate preconstruction engineering and design were appropriated in FY2001. Construction funding was appropriated in FY2004. The project will restore high quality habitat that has been lost. Several of the Puget Sound salmon species have recently been listed under the Endangered Species Act. The project will provide a major component for habitat restoration in the Duwamish/Green River Basin needed to stem further declines and to begin the rebuilding of salmon habitat. The project will complement other local, state, and federal programs for salmon recovery in the Puget Sound Basin.



Division: Northwestern District: Seattle Duwamish and Green River Basin, Washington

1 February 2010 NWD-63

APPROPRIATION TITLE: Construction, Environment & Water Supply, Fiscal Year 2011

PROJECT: Howard Hanson Dam, Washington – (Continuing)

LOCATION: Howard Hanson Dam is located on the Green River, in King County, 23 miles upstream and east of Auburn, WA and about 40 miles southeast of Seattle WA in western Washington.

DESCRIPTION: The project will add ecosystem restoration and municipal and industrial (M&I) water storage to the existing flood control project and will meet Endangered Species Act (ESA) requirements necessitated by the listing of the Puget Sound Chinook Salmon and Steelhead. Phase I of the project will consist of construction of a new full height fish passage facility, upstream engineered log jams and side channels, downstream gravel nourishment, planting of sedge meadows, and placement of large woody debris at multiple upstream and downstream locations. Phase I also includes raising the summer conservation pool 20 feet (from elevation 1,147 feet to elevation 1,167 feet) to increase storage by 20,000 ac–ft for water supply use. Water will be stored in the spring for M&I use in the summer and fall with no changes to the flood storage capacity. This feature has already been implemented. Phase II of the project will proceed with the concurrence of the sponsor, the resource agencies, and the Muckleshoot Tribe. Phase II would consist of raising the pool another 10 feet to elevation 1,177 feet to store an additional 2,400 ac–ft of M&I water, plus 9,600 ac–ft of ecosystem restoration low flow augmentation water, for a total of 32,000 additional ac–ft of storage for Phases I and II. Phase II includes additional habitat construction and raising of access roads adjacent to the dam.

AUTHORIZATION: Section 101(b) 15 of Water Resources Development Act of 1999 (PL 106-53). Flood Control Act of 1950 (PL 81-516) authorized the construction of the original Eagle Gorge Reservoir on the Green River. The project name was changed to Howard A. Hanson Dam in 1958 by P.L.85-592.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable. Environmental restoration project costs are not subject to formal benefit calculations.

TOTAL BENEFIT–COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT–COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA:

		Accumulated Percent of Estimated Federal Cost	Status (1 Jan 2010)	Percent Complete	Physical Completion Schedule
Estimated Federal Cost	$ 99,032,000		Entire Project	55%	To be determined
Estimated Non-Federal Cost	23,000,000				
Cash Contributions	19,000,000				
Other Costs	4,000,000				
Total Estimated Project Cost	$122,032,000				
Allocations to 30 September 2007	$ 58,929,000				
Allocation for FY 2008	12,504,000				
Allocation for FY 2009	9,570,000				
Recovery Act Allocations to Date	0				
Conference Allowance for FY 2010 12,282,0	00				
Allocation for FY 2010	12,282,000				
Allocations through FY 2010	$93,285,000	95%			
Allocation requested for FY 2011	500,000	95%			
Programmed Balance to Complete after FY 2011	TBD				
Unprogrammed Balance to Complete after FY 2011	0				

PHYSICAL DATA:

Dam: Type: Rolled earth and rock fill
Height: 235 feet long
Crest: 500 feet long
Width: 960 feet at base, 23 feet at crest

Outlet Tower:
Type: Reinforced Concrete
Free standing section: 107 feet
Base section 105 feet

Spillway: Type: Ogee crest with two 45' x 30' tainter gates
Design Capacity: 106,000 cfs
Overtopping Capacity: 19,000 cfs

19 Ft. Tunnel:
Capacity: 22,000 cfs open channel flow
Normal Release 10,000 cfs
Length 900 feet

Division: Northwestern
District: Seattle
Howard Hanson Dam, Washington
1 February 2010
NWD-65

JUSTIFICATION: The existing project purposes are flood control and downstream low flow augmentation. The modified project is a multi-purpose project with the additional purposes identified in WRDA 1999 as ecosystem restoration and water supply. Because of the listing of Chinook and Steelhead salmon as threatened under the ESA and a subsequent approved cost reallocation, compliance with ESA initiatives has also become a project purpose.

Restoring self-sustaining runs of anadromous fish to the upper Green River watershed is the number one priority of multi-agency ecosystem restoration planning for the Green River basin. Between 1911 and 1913, the City of Tacoma constructed a 17-foot high water supply diversion dam effectively blocking upstream migration of anadromous fish to the Upper Green River watershed. Howard Hanson Dam was constructed upstream of the diversion dam in the 1960's. The project was constructed with only low-level water conveyance outlets with no provision for fish passage, as there was no anadromous fish in the upper watershed. Recently, Section 7 consultation with the National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS) resulted in the requirement that fish passage be provided at Howard Hanson Dam and that mitigation is required for the original project. A state of the art downstream juvenile fish passage facility will be provided in Phase I of this project, to work in tandem with an adult trap and haul facility for upstream fish passage which will be provided by others. The fish passage facility, complimented by increased in-stream low flows and other proposed project fish and wildlife habitat restoration measures provide historic opportunities to restore and maintain self-sustaining runs of salmon and steelhead in the Green River. Low flow augmentation in the summer months, part of Phase II, is expected to improve spawning habitat and survival success rates downstream of the project. The phased implementation and adaptive management measures proposed for the project allow for the flexibility to make adjustments to ensure the protection and recovery of both the fish and the associated wildlife.

The availability and quality of water is an increasing concern in the South Puget Sound Region and the Seattle-Tacoma metropolitan area. Recent droughts have led to water rationing. The region's continuing growth and development and expanding population depend upon a reliable supply of water. The Project Phase I water storage is a crucial part of the regional water supply plan. The storage of additional M&I water will provide a stable, cost effective water supply for the region.

FISCAL YEAR 2010: The current amount is being applied as follows:

Award electrical upgrade contract	3,000,000
Award construction contract for the Administration and Maintenance building addition	8,282,000
Continue fish passage facility design and Post Authorization Change (PAC) report	1,000,000
TOTAL 12,282,0	00

FISCAL YEAR 2011: The requested amount will be applied as follows:

Finalize planning and engineering/approval of PAC report	500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 as amended, the non-Federal sponsor must comply with the requirements listed below:

	Payments Annual During Construction Maintena Co	Operation and nce sts
Provide lands, easements, rights of way, and relocations	$ 4,000,000	
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of municipal and industrial water supply facilities.	15,300,000	$111,000
Pay 35 % of the costs allocated to fish and wildlife enhancement, and pay 100 % of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	3,700,000	653,000
TOTAL NON-FEDERAL COSTS	$23,000,000	$764,000

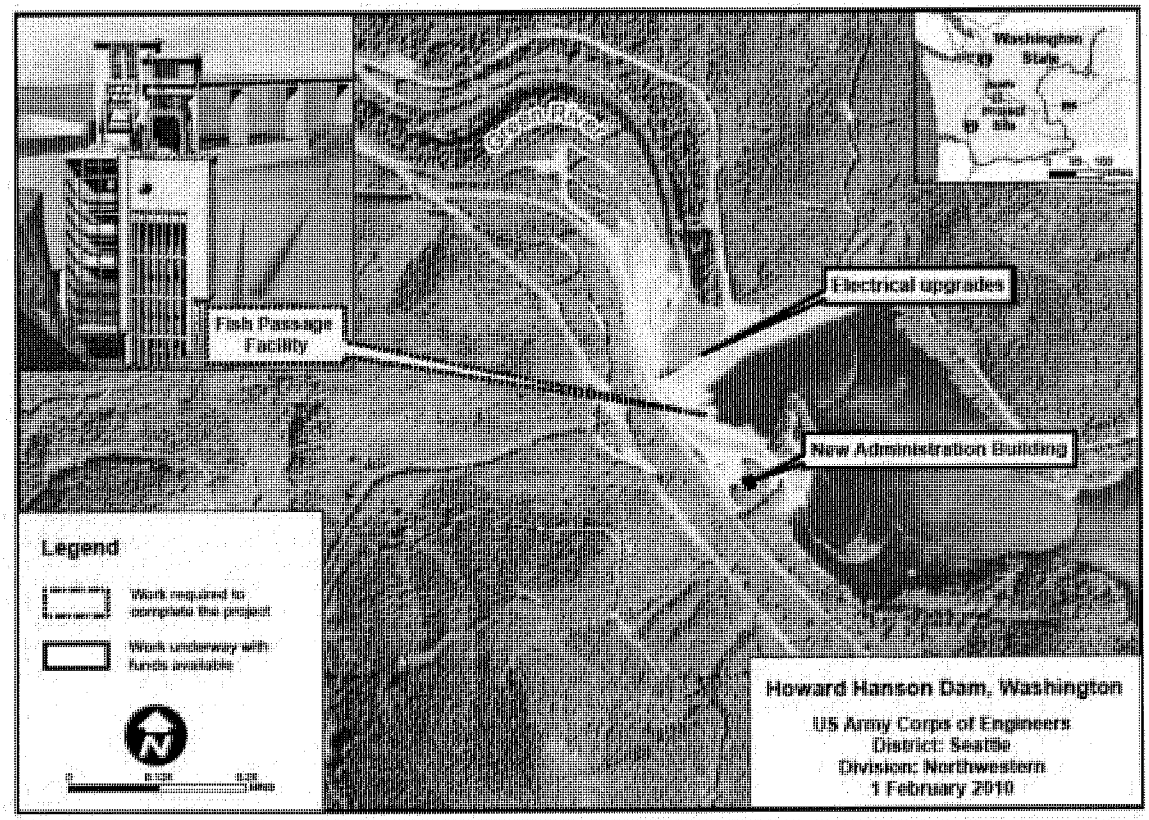
STATUS OF LOCAL COOPERATION: The non-Federal sponsor is the City of Tacoma Public Utilities who signed the project PCA in July of 2003 and is providing its full share of project funding.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency and the Record of Decision was signed on July 25, 2001.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $99,032,000 is unchanged from the latest estimate presented to Congress (FY 2010). A Post Authorization Change (PAC) report is being prepared.

OTHER INFORMATION: Howard Hanson Dam provides flood control storage on the Green River. During the January 2009 flood event, prevented damages were approximated at $4 billion. Downstream of the dam is the Auburn-Kent Valley with the cities of Auburn, Kent, Renton, Algona, Pacific, and Tukwila. The dam provides flood protection for residential areas, agricultural lands, and intensively developed industrial and commercial areas. The Boeing Space Center, a major defense contractor, is located in the center of the Kent Valley. The population in the flood plain exceeds 250,000.

Funds to initiate Preconstruction Engineering and Design (PED) were appropriated in FY 1998, and the PED agreement was executed with the City of Tacoma Public Utilities in March 1999. The Final Chief's Report was signed on 13 August 1999. Construction funds were first appropriated in FY 2002.


Green River
Electrical upgrades
Fish Passage Facility
New Administration Building
Legend
Work required to complete the project
Work underway with funds available
N
Washington State
Howard Hanson Dam, Washington
US Army Corps of Engineers
District: Seattle
Division: Northwestern
1 February 2010

Division: Northwestern

District: Seattle

Howard Hanson Dam, Washington

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APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Lower Columbia River Ecosystem Restoration, Oregon and Washington (Continuing)

LOCATION: The Lower Columbia River extends from the mouth of the Columbia River to river mile (RM) 145 at Bonneville Lock and Dam. The river divides the states of Oregon and Washington throughout this area.

DESCRIPTION: The study areas include the estuary of the Columbia River and all of the tributaries of the Columbia River that are tidally influenced, which includes the Willamette River up to Willamette Falls. Justification for the project is based on non-monetary quantitative change in fish and wildlife habitat units and other biological benefits. Since benefits are non-monetary, a benefit-to-cost ratio has not been prepared. A comprehensive conservation and management plan was developed for the Lower Columbia River under Section 320 of the Federal Water Pollution Control Act (33 U.S.C. 1330).

AUTHORIZATION: Section 536 of the Water Resources Development Act of 2000 (P. L. 106-541, dated 11 December 2000).

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Environmental restoration project costs are not subject to formal benefit calculations.)

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA:		ACCUM % OF EST FED COST
Estimated Federal Cost	$20,000,000	
Estimated Non-Federal Cost	4,000,000	
Cash Contributions	TBD	
Total Estimated Project Cost	$24,000,000	
Allocations to 30 September 2007	7,392,000	
Allocation for FY 2008	1,688,000	
Allocation for FY 2009	1,435,000	
Recovery Act Allocations to Date	1,029,000	
Conference Allowance for FY 2010	1,559,000	
Allocation for FY 2010	1,559,000	
Allocations through FY 2010	13,103,000	77%
Allocation Requested for FY 2011	4,700,000	99%
Programmed Balance to Complete after FY 2011	2,197,000	1/
Unprogrammed Balance to Complete after FY 2011	0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	53%	To Be Determined

PHYSICAL DATA:

Types of projects will include, but not be limited to:
- a) creation and restoration of shallow water habitat;
- b) restoration of wetlands;
- c) improvements to fish passage;
- d) restoration of floodplain functions and other actions to restore the estuary ecosystem

1/ Expect Programmed Balance to Complete after 2011 to be reduced to $46,000 due to additional planned allocation of ARRA funds totaling $2,151,000.

JUSTIFICATION: National Oceanic and Atmospheric Administration (NOAA) Fisheries has identified the Columbia River Estuary as playing a vital role in rebuilding the productivity of Columbia River Basin salmon and steelhead listed under the Endangered Species Act. Over time, this basin has experienced considerable changes in water resource needs and uses. In addition, significant environmental degradation has occurred within the lower Columbia system. Modification of the system by human activities has led to a marked change in the hydrologic regime, and caused pollution and substantial losses of in-stream, riparian and wetland habitats, and a concomitant reduction in fish and wildlife resources. Flood control, water quality, navigation, water-related infrastructure, and ecosystem restoration needs have all been evaluated on a case-by-case basis. Thirteen stocks of anadromous salmonids that reproduce in the Columbia River Basin have been listed as threatened or endangered and they all use the estuary to some extent. Such listings have broad implications to existing water resource uses, and future developments. The 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) includes reasonable and prudent actions (RPAs) calling for planning and restoration efforts in the Columbia River estuary to help avoid jeopardy for these listed species. Historic losses of 52,000 acres of wetland/marsh habitats, 13,800 acres of riparian forest habitat and 27,000 acres of forested wetland habitat downstream of Portland have significantly impacted this ecosystem's ability to produce and sustain fish and wildlife resources. Much of this wetland loss can be attributed to the 84,000 acres encompassed by diking districts and the 20,000-acre increase in urban development that has occurred along the lower Columbia River.

The implementation of the Lower Columbia River element of this section 536 legislation will serve as the catalyst to bring together and implement current efforts by a number of governmental and private organizations including the National Estuary Program, six state agencies from Oregon and Washington, four Federal agencies, recreation, ports, industry, agriculture, labor, commercial fishing, environmental interests and citizens to identify and cost share restoration projects.

NON-FEDERAL COSTS: The authorization provides that studies shall be subject to cost sharing in accordance with Section 105 of WRDA 1986 and that restoration projects shall be cost shared at 35% by non-Federal interests, that nonfederal interests shall provide all lands, easements, rights-of-way, dredged material disposal areas, and relocations necessary for the projects to be carried out and that in-kind contributions can not exceed 50% of the non-Federal share. However, the Federal share of projects carried out on Federal lands shall be 100%.

STATUS OF LOCAL COOPERATION: Project Cooperation Agreements for individual restoration sites are prepared/executed as they are identified.

(1) Crims Island Site: A Memorandum of Agreement was executed in May 2004 with U.S. Fish and Wildlife Service.
(2) Columbia River Riparian Site: A Memorandum of Understanding was executed in February 2006 with U.S. Dept. of Agriculture (Forest Service).
(3) Julia Butler Hanson Site: A Memorandum of Agreement was executed in August 2008 with U.S. Fish and Wildlife Service.
(4) Water Resources Education Center Site: A Project Cooperation Agreement is scheduled to be executed in December 2010 with the City of Vancouver, WA.
(5) Ramsey Lake Site: A Project Cooperation is scheduled to be executed in December 2010 with the City of Portland.
(6) Lower Columbia Pile Structure Project: A Project Cooperation Agreement is scheduled to be executed in December 2010 with the Lower Columbia River Estuary Partnership.
(7) Sandy River Delta Site: A Memorandum of Agreement is scheduled to be executed in October 2010 with U.S. Dept of Agriculture (Forest Service).
(8) Washington Estuary Sites: A Memorandum of Agreement was executed in September 2009 with Washington State Department of Fish and Wildlife.

FISCAL YEAR 2010: The current amount is being applied as follows:

Initiate construction of the Sandy River Site and planning, engineering and design of projects in pre-construction status	$1,559,000

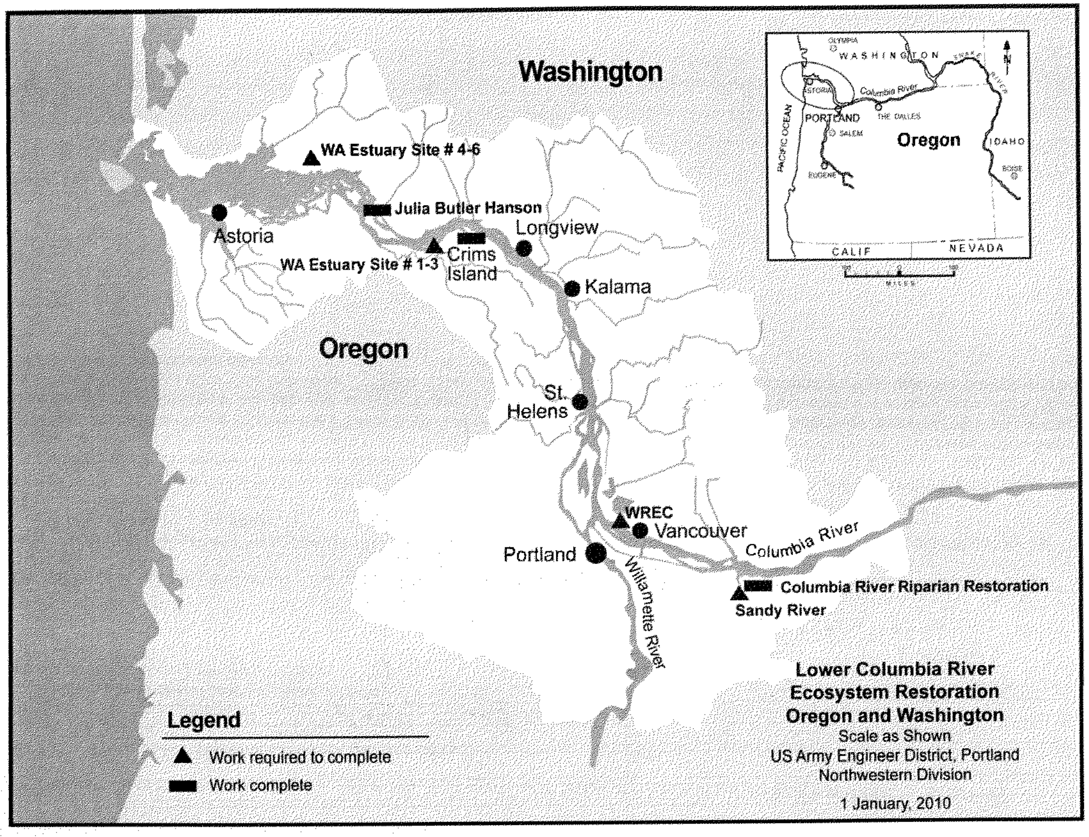
FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue planning, engineering and design of projects in pre-construction status	$1,850,000
Initiate construction of one Washington Estuary Site	$1,400,000
Initiate construction of the Ramsey Lake Site	$1,000,000
Complete construction of the Sandy River and Julia Butler Hansen Sites	$ 450,000
Total	$4,700,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $20,000,000 is unchanged from last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Impact Statement has not been prepared. NEPA documentation for individual restoration sites is prepared as they are identified.

OTHER INFORMATION: The Lower Columbia River and Tillamook Bay Ecosystem Restoration, Oregon and Washington authority (Section 536 of WRDA 2000) was created in part to help the Corps meet the needs of listed salmon and steelhead using the Columbia River estuary and is one of the primary authorities for meeting Biological Opinion (BiOp) requirements. Estuary habitat improvement continues to be an important element of the draft proposed action being discussed in the remand process to develop a new BiOp for the FCRPS. Types of projects will include, but not limited to, creation and restoration of shallow water habitat, restoration of wetlands, improvements to fish passage, and restoration of floodplain functions and other actions to restore the estuary ecosystem. Also, the Corps is undertaking a feasibility study, Lower Columbia River Ecosystem Restoration, WA & OR, with a broader geographical scope than this project, and addressing ecosystem issues in addition to salmon recovery.



Division: Northwestern

District: Portland

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Lower Columbia River Ecosystem Restoration,
Oregon and Washington
NW[illegible]2

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho, (Continuing)

LOCATION: Hatchery sites are located at McCall, Idaho, about 1,500 feet downstream from Payette Lake; Lyons Ferry, Washington, at River Mile 59 on the Snake River; Lookingglass, Oregon, about 10 miles northwest of Elgin, Oregon; Hagerman, Idaho, 10 miles west of Twin Falls, Idaho; Irrigon Hatchery, about 10 miles west of Umatilla, Oregon; Dworshak Expansion, Sawtooth Hatchery about 5 miles south of Stanley, Idaho; Magic Valley Hatchery about 4 miles north of Buhl, Idaho; and Clearwater Hatchery about 5 miles west of Orofino, Idaho. Fishing and hunting access and wildlife habitat lands will be located in Washington and Idaho. The riparian lands are located on the Snake and Columbia River Drainages from the Washington/Oregon border upstream to the confluence with the Clearwater River. This reach includes significant tributaries and their watersheds, including (but not limited to) the Walla Walla, Tucannon, Asotin, Grande Ronde, and Imnaha River basins.

DESCRIPTION: The project consists of a number of Chinook and Steelhead hatcheries that will provide 27,000,000 juvenile salmon and steelhead annually. These fish will be released in streams for migration to the Pacific Ocean. Adult salmon and steelhead resulting from these releases will provide both sport and commercial fishing opportunities with over 4 million pounds of fish going to the commercial fisheries and providing approximately 689,000 additional angler days of sport fishing. An estimated 132,000 adult fish will return to the project area of the Snake River. In addition to the anadromous fish, 93,000 pounds of trout will be reared and released in Eastern Washington which will provide 45,000 additional angler days of sport fishing. There will be an aggregate of 24,150 acres in fee or easement for fisherman access, wildlife habitat and hunting access. Additionally, a program has been implemented with Washington State Department of Game to produce the equivalent of 20,000 game birds per year for 20 years. The 1989 Letter of Agreement (LOA) entered into by the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (COE) and the Washington Department of Fish and Wildlife (WDFW) states that Lower Snake River Fish and Wildlife Plan mitigation, as authorized by Pub. L. 94-587 and Pub. L. 99-662, will be measured on a habitat basis instead of using "animal number replacement" as a basis for measurement. The "Special Report – Lower Snake River Fish and Wildlife Compensation, Wildlife Habitat Compensation Evaluation for the Lower Snake River Project" submitted in June 1991, concluded that, "Current habitat conditions of project lands do not contribute significantly to meeting compensation goals…" This project will restore 1,916 acres of project forbland; 3,285 acres of project woody riparian land; and 24,271 acres of project grass/shrub steppe land to pre-project conditions. Additional project restoration effort would include creation of small forested islands and shallows which would provide the additional benefit of creating substantial natural salmon spawning and rearing habitat. Consequently, significant consideration and effort will be given to protecting, preserving and perpetuating natural salmon spawning and rearing habitat which is a significant beneficiary of woody riparian lands.

AUTHORIZATION: Water Resources Development Act of 1976 as modified by the Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable. Mitigation is incrementally justified through consideration of costs and non-monetary benefits.

TOTAL BENEFIT-COST RATIO: Not Applicable.

INITIAL BENEFIT-COST RATIO: Not Applicable.

BASIS OF BENEFIT COST RATIO: Not Applicable.

SUMMARIZED FINANCIAL DATA			ACCUM STATUS: PCT. OF EST FED COST
Estimated Appropriation Requirements		$261,000,000	
Future Non-Federal Reimbursement		253,307,000	
Estimated Federal Cost (Ultimate)		7,693,000	
Estimated Non-Federal Cost		253,530,000	
Cash Contributions	$ 223,000		
Reimbursements	253,307,000		
Power $253,307,000			
Total Estimated Project Cost		261,223,000	
Allocations to 30 September 2007		237,876,000	
Allocation for FY 2008		375,000	
Allocation for FY 2009		1,435,000	
Recovery Act Allocations To Date		0	
Conference Allowance for FY 2010		1,417,000	
Allocations for FY2010		1,417,000	
Allocations through FY 2010		241,103,000	92
Allocation Requested for FY 2011		1,500,000	
Programmed Balance to Complete after FY 2011		18,397,000	
Unprogrammed Balance to Complete after FY 2011		0	

(1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	92	TBD
Wildlife Compensation	100	Sep 2002
Fish Facility	90	TBD
Lands	100	Sep 1994

PHYSICAL DATA

Capacity of Hatcheries
9,160,000 Fall Chinook Smolts - 101,800 lbs.
6,750,000 Spring and Summer Chinook Smolts - 450,000 lbs.
11,020,000 Summer Steelhead - 1,377,500 lbs.
93,000 lbs. Of Resident Sport Fishery

Acquisition of 24,150 acres for fisherman access and wildlife compensation and improvement of land for wildlife compensation.

Restore 1,916 acres of project forbland, 3,285 acres of project woody riparian land, and 24,271 acres of project grass/shrub steppe land to pre-project conditions.

JUSTIFICATION: The Lower Snake River Fish and Wildlife Project will provide for losses to fish and wildlife resources caused by construction and operation of the four dams (Ice Harbor, Lower Monumental, Little Goose, and Lower Granite) constituting the Lower Snake River Project, authorized by P.L. 79-14, as is required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) in accordance with the requirements of the Lower Snake River Fish and Wildlife compensation Plan negotiated in accordance therewith and subsequently authorized by P.L. 94-587 and P.L. 99-662.

Division: Northwestern — District: Walla Walla — Lower Snake River Fish and Wildlife Compensation, Washington, Oregon, Idaho

FISCAL YEAR 2010: Funds are being applied as follows:

Complete design and P&S at several HMU locations and initiate construction of new woody riparian habitat.	$1,417,000
Total	$1,417,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate P&S for woody riparian habitat restoration for multiple sites; and initiate pre-construction monitoring and new construction contracts for additional woody riparian habitat restorations.	$1,000,000
Complete monitoring and alternative analysis for aquatic ecosystem restoration at multiple sites.	$500,000
Total	$1,500,000

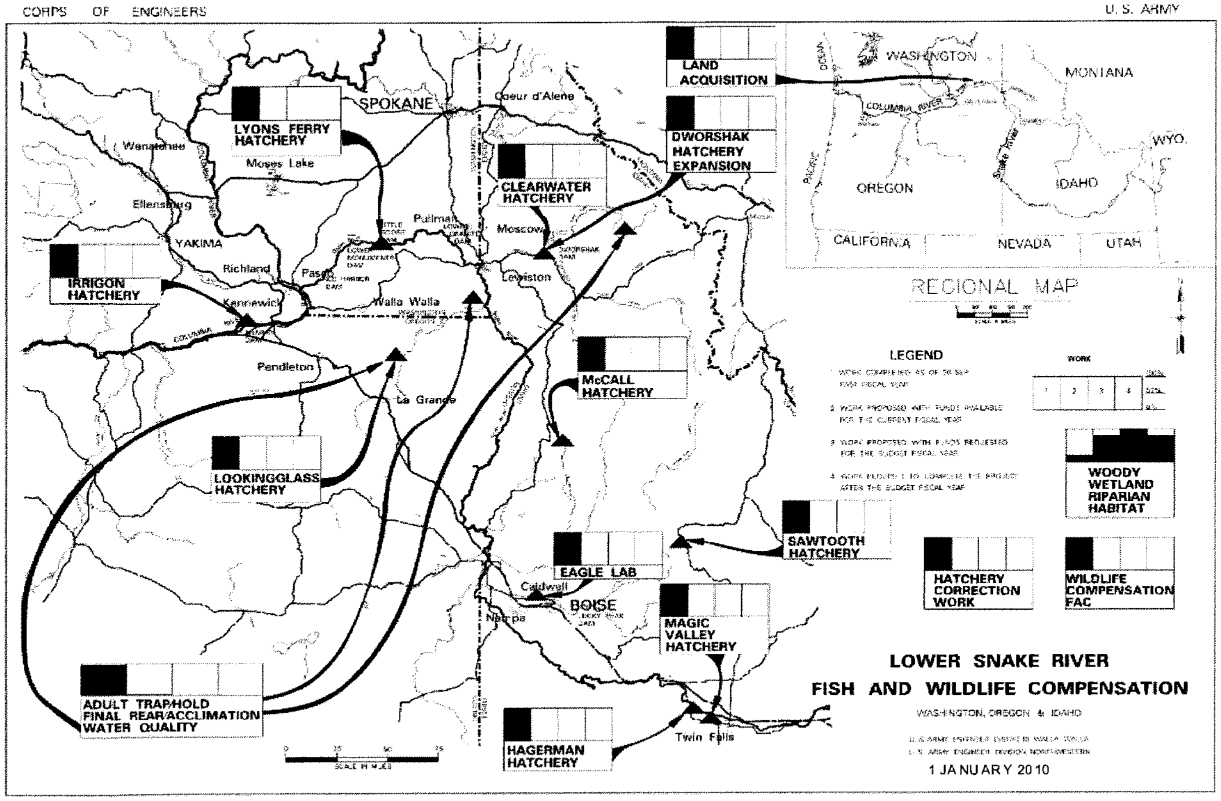
NON-FEDERAL COSTS: Costs allocable to power presently estimated at $253,307,000 are reimbursable. This project is a part of the Federal Columbia River Power System. Bonneville Power Administration (BPA), the Federal marketing agency, establishes system rate levels adequate to recover all capital investment costs for generating projects (including Corps generating projects) within a 50-year period and to repay annual OM&R and interest expenses. BPA submits an annual financial statement to Congress, as required by law, on repayment and periodically recommends rate adjustments as required for meeting repayment obligations. In addition, a cash contribution to expand the Lyons Ferry Hatchery ($223,000) has been furnished.

STATUS OF LOCAL COOPERATION: None required for construction.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $261,000,000 is the same estimate last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Council on Environmental Quality on 29 October 1977. Additional Environmental documentation pursuant to NEPA will be accomplished as necessary. Consultations with the National Marine Fisheries Service will be held and biological assessments prepared as necessary to conform with requirements of the Endangered Species Act.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1978 and for Construction in Fiscal Year 1979. The purpose of the entire project is fish and wildlife compensation for the four mainstem dams on the Snake River.



Division: Northwestern

District: Walla Walla

Lower Snake River Fish and Wildlife Compensation,
Washington, Oregon, Idaho

1 Febr 2010

NV '6

APPROPRIATION TITLE: Construction, Environment, Fiscal Year 2011

PROJECT: Missouri River Fish and Wildlife Recovery, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, and Tributaries (Continuing)

LOCATION: The Missouri River mainstem and its tributaries.

DESCRIPTION: Within the Missouri River basin, planned activities will recover and provide protection to federally listed species under the Endangered Species Act, and the ecosystems on which they depend, to address the effects of the operation of the Missouri River Mainstem Reservoir System, the Missouri River Bank Stabilization and Navigation Project, and the Kansas River Project. Between Sioux City Iowa and the mouth of the Missouri River, planned activities will also provide for mitigation of loses to fish and wildlife habitats specifically resulting from the construction and operation of the Missouri River Bank Stabilization and Navigation Project.

AUTHORIZATION: All existing authorized Corps of Engineers projects along the Missouri River and tributaries - including the Water Resources Development Acts of 1986, 1988, 1999, and 2007; National Industrial Recovery Act of 1933; Flood Control Acts of 1938, 1944, 1954; River and Harbor Act of 1945; as amended.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

INITIAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA:		ACCUM PCT OF EST FED COST	Status (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$3,739,687,000		Entire Project	10	To Be Determined
Estimated Non-Federal Other Costs	0				
Total Estimated Project Cost	3,739,687,000				
Allocations to 30 September 2007	246,715,000				
Allocation for FY 2008	50,184,000				
Allocation for FY 2009	57,418,000				
Recovery Act Allocations To Date	6,910,000				
Conference Allowance for FY 2010	56,686,000				
Allocation for FY 2010	56,686,000				
Allocations through FY 2010	417,913,000	11			
Allocation Requested for FY 2011	78,400,000	13			
Programmed Balance to Complete after FY2011	$3,243,374,000				
Unprogrammed Balance to Complete after FY2011	0				

JUSTIFICATION: The USFWS 2003 Amended Biological Opinion concluded that the Corps' operation of the Missouri River Mainstem Reservoir System, Bank Stabilization and Navigation Project, and Kansas River Project jeopardizes the continued existence of the endangered pallid sturgeon. Funding will be used to implement elements of the Reasonable and Prudent Alternative to Jeopardy for the pallid sturgeon, and actions necessary to preclude jeopardizing the endangered interior least tern and threatened piping plover. These measures to avoid jeopardy to the listed species include enhanced and accelerated shallow water habitat construction and floodplain connection for the pallid sturgeon, enhanced emergent sandbar habitat construction for nesting tern and plover, additional pallid sturgeon propagation support, more comprehensive population assessment for the three species, an intensive research, monitoring and evaluation program for the species, and an adaptive management strategy that includes participation with the USFWS in a Missouri River Recovery Implementation Committee including diverse stakeholder participation.

Below Sioux City, the project will restore and/or preserve natural ecosystem functions of the Missouri River floodplain. Terrestrial habitats will include wetlands, prairie grass and bottomland hardwood plantings. Some existing levees will be relocated away from the river or breached to reconnect the floodplain. Chutes and backwater areas will be excavated or dredged and river banklines modified to increase aquatic habitats and riverine diversity. As originally conceived, the program would establish approximately 120 individual mitigation sites, over time creating a riparian corridor. Lands required for implementation will be acquired from willing sellers to the maximum extent possible.

FISCAL YEAR 2010: Funds are being applied to first address the highest priority efforts to comply with the USFWS BiOp requirements followed by critical mitigation efforts below Sioux City. Selected mitigation sites will also be prioritized to also best respond to overlapping requirements of the BiOp. Construction work for the Lower Yellowstone Intake project will begin in FY 2010. Current estimated execution plan includes effort as follows:

Item	Amount
Program Management Activities	$ 3,726,000
Lower Yellowstone Intake	18,000,000
Endangered Species Research and Evaluation	9,504,000
MRERP Study/MRRIC Coordination	3,700,000
Shallow Water Habitat Construction	5,435,000
Emergent Sandbar Habitat (terns and plovers)	4,221,000
Real Estate Acquisition	12,100,000
Total	$56,686,000

FISCAL YEAR 2011: The requested amount will be applied to first address the highest priority efforts to comply with the USFWS BiOp requirements followed by critical mitigation efforts below Sioux City. Selected mitigation sites will also be prioritized to also best respond to overlapping requirements of the BiOp. Construction work for the Lower Yellowstone Intake project will continue in FY 2011. Current estimated execution plan includes effort as follows:

Item	Amount
Program Management Activities	$ 4,000,000
Lower Yellowstone Intake	12,000,000
Endangered Species Research and Evaluation	8,000,000
MRERP Study/MRRIC Coordination	4,000,000
Shallow Water Habitat Construction	31,400,000
Emergent Sandbar Habitat (terns and plovers)	9,000,000
Real Estate Acquisition	10,000,000
Total	$78,400,000

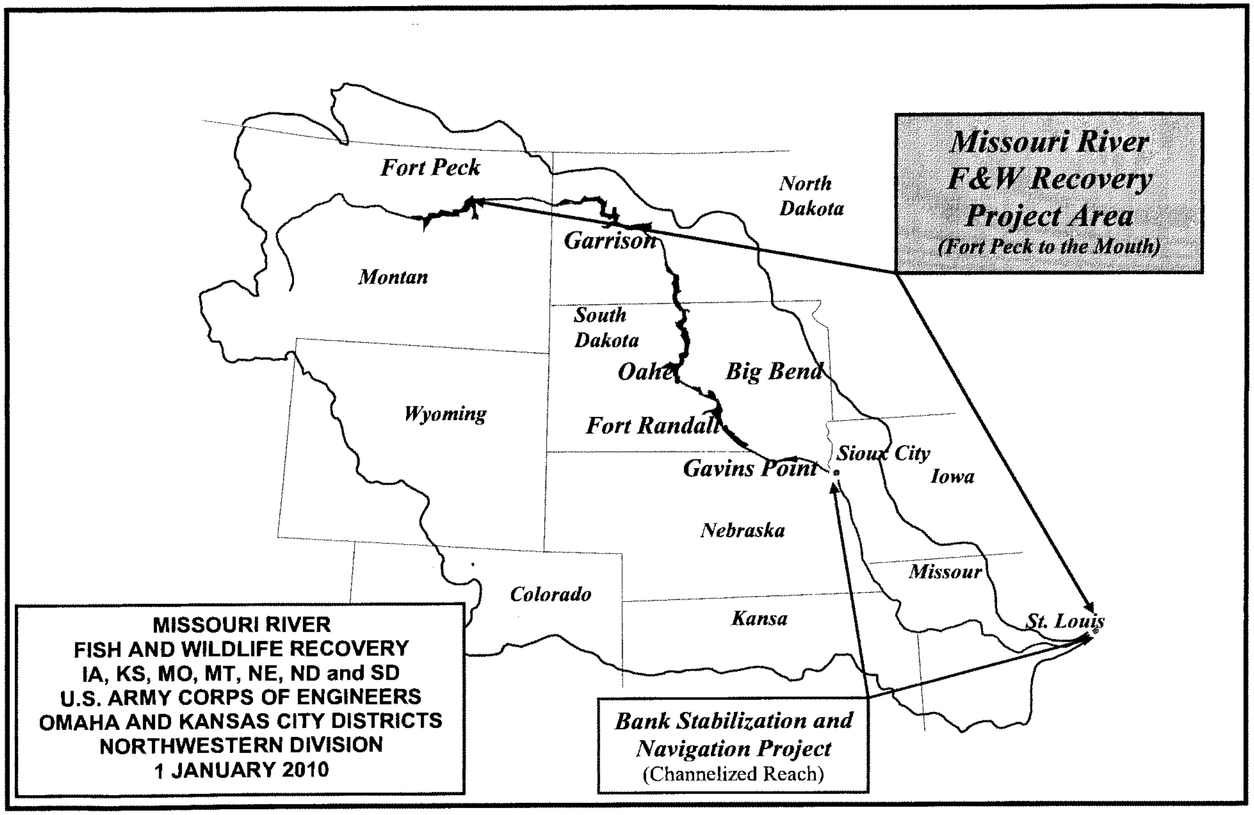
NON-FEDERAL COSTS: Not applicable

STATUS OF LOCAL COOPERATION: Endangered Species recovery is a Federal responsibility. The 1986 and 1999 authorizing acts for the mitigation below Sioux City provides that the entire cost of the project, including all lands, easements, rights-of-way, and relocations, and all operation and maintenance costs be borne by the Federal Government with no costs to either local or state governments. Therefore, there is no non-Federal sponsor for the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $3,739,687,000 is the same as last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The 2003 Amended Biological Opinion was prepared in response to the Corps' proposed revision of the Missouri River Master Water Control Manual as discussed in the supporting NEPA documents. However, the scope of the Amended Biological Opinion is broader than dam operations. Both programmatic and site-specific NEPA documents are being prepared to fulfill NEPA responsibilities for compliance with the 2003 Amended Biological Opinion. The Missouri River Mitigation Project Final Environmental Impact Statement was filed with the U.S. Environmental Protection Agency on 23 December 1982. A supplement to the EIS was completed to allow acquisition and habitat development on the 118,650 acres authorized in WRDA 1999. The Record of Decision was signed 12 Jun 03.

OTHER INFORMATION: Funds to initiate pre-construction engineering and design of the mitigation project (BSNP) were appropriated in FY 1990. Initial construction funds for the mitigation project (BSNP) were appropriated in FY 1992. Funding for the combined ESA and mitigation efforts, Missouri River Fish and Wildlife Recovery, were first appropriated in FY 2005



MISSOURI RIVER
FISH AND WILDLIFE RECOVERY
IA, KS, MO, MT, NE, ND and SD
U.S. ARMY CORPS OF ENGINEERS
OMAHA AND KANSAS CITY DISTRICTS
NORTHWESTERN DIVISION
1 JANUARY 2010

1 January 2009

Division: Northwestern

District: Omaha/Kansas City

1 Febr 2010

Missouri River Fish and Wildlife Recovery,
IA, KS, MO, MT, NE, ND, SD, and Tributaries
NW' '0

HYDROPOWER

CONSTRUCTION

1 February 2010

NWD-82

APPROPRIATION TITLE: Construction, Hydropower, Fiscal Year 2011

PROJECT: Columbia River Treaty Fishing Access Sites, Oregon and Washington (Continuing)

LOCATION: Thirty-two sites located along the Columbia River on Bonneville Pool, John Day Pool, and The Dalles Pool.

DESCRIPTION: The project includes land acquisition and access facility development on Bonneville, The Dalles and John Day pools and redevelopment of Celilo Village on The Dalles Pool. The intent is to provide "equitable satisfaction" of the United States government's commitment to replace usual and accustomed fishing sites inundated by construction of the Bonneville Dam. In 1855, the Tribes reserved the right to access and fish at usual and accustomed sites through treaties. The United States Supreme Court upheld these rights in 1905 and again in 1919. The improvements will include access roads, camping facilities, boat ramps and docks, sanitation and support facilities. Upon improvement, the land and improvements will be transferred to the U.S. Department of Interior for operation and administration on behalf of the Tribes.

AUTHORIZATION: Public Law 100-581 Title IV, as amended by Public Law 104-109, Public Law 104-303, Public Law 106-541, and Public Law 108-204.

REMAINING BENEFIT - REMAINING COST RATIO: N/A Economic justification is not required. This project is specifically authorized in PL 100-581 to mitigate Bonneville Project impact on the treaty fishing access on the Columbia River.

TOTAL BENEFIT-COST RATIO: N/A

THE INITIAL BENEFIT - COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA	
Estimated Appropriation Requirement	$116,797,000
Future Non-Federal Reimbursement	0
Estimated Federal Cost (Ultimate)	0
Estimated Non-Federal Cost	0
Total Estimated Project Cost	$116,797,000

STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	90 %	To Be Determined

PHYSICAL DATA:
Improvements: Access roads, utilities, and camping facilities.

SUMMARIZED FINANCIAL DATA (continued)

			ACCUM % OF EST FED COST
Allocation to 30 September 2007	$ 77,176,000		
Allocation for FY 2008	1,666,000		
Allocation for FY 2009	3,042,000		
Recovery Act Allocations to Date	23,471,000		
Conference Allowance for FY 2010	472,000		
Allocation for FY 2010	472,000		
Allocations through FY 2010	105,827,000	1/	95%
Allocation Requested for FY 2011	500,000		96%
Programmed Balance to Complete after FY 2011	10,470,000	2/	100%
Unprogrammed Balance to Complete after FY 2011	0		

1/ Includes $8,339,000 transferred to Department of Interior for operation and maintenance of the completed sites.

2/ Expect Programmed Balance to Complete after FY 2011 to be reduced to $5,611,000 due to additional planned allocation of ARRA funds totaling $4,859,000.

JUSTIFICATION: In 1855, Indian Tribes of the Pacific Northwest entered into treaties with the United States. They ceded title to lands in the Columbia Basin and reserved the non-reservation treaty right to access the Columbia River and to take fish at "usual and accustomed" fishing places. In the 1930's, the United States constructed Bonneville Dam which inundated 37 of the treaty protected "usual and accustomed" sites. In accordance with a 1939 agreement between the War Department and the Indian Tribes, the United States was to provide 400 acres of land at six sites from Bonneville Dam to The Dalles, Oregon. Under subsequent authority the United States provided five sites totaling approximately 40 acres. In hearings held by the United States Senate Select Committee on Indian Affairs, Congress acknowledged the inequity and later enacted Public Law 100-581, Title IV - Columbia River Treaty Fishing Access Sites. The project provides "equitable satisfaction" of the United States government's commitment to replace those lands inundated by construction of the Bonneville project in accordance with the authorizing legislation.

NON-FEDERAL COSTS: Fully Federal funded.

STATUS OF LOCAL COOPERATION: N/A

FISCAL YEAR 2010: The current amount is being applied as follows:

Complete engineering report for Wyeth treaty fishing access site............ $472,000

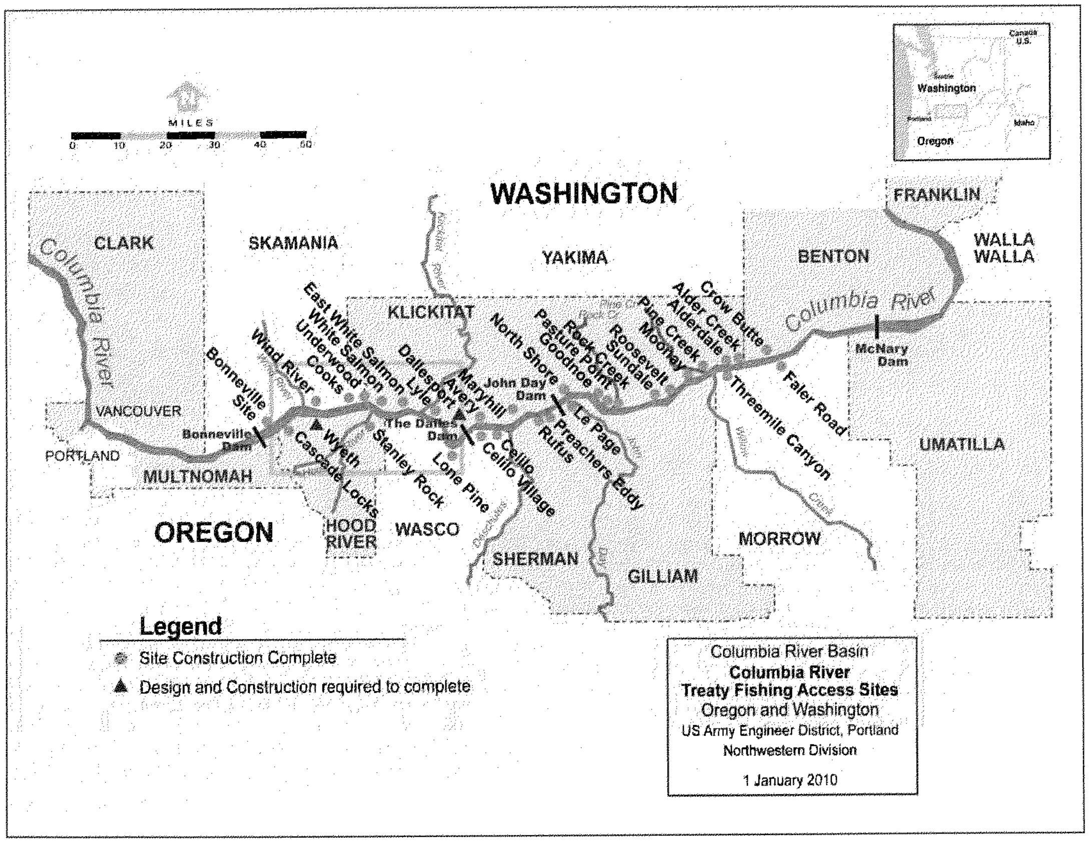
FISCAL YEAR 2011: The requested amount will be applied as follows:

Prepare Project Close-out Report $500,000

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal cost estimate of $116,797,000 is an increase of $2,200,000 from the latest estimate ($114,597,000) presented to Congress (FY 2010). The increase is due to price leveling.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Draft Environmental Assessment indicates the potential environmental impacts from the development are minor. The Environmental Assessment was completed and a Finding of No Significant Impact was signed in April 1995.

OTHER INFORMATION: The four involved Indian tribes include the Nez Perce Tribe of Idaho, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes of the Yakima Indian Nation. The Evaluation Report and the Post Authorization Change Report indicated that the recommended project is technically sound, cost effective, environmentally acceptable, and complies with applicable Corps of Engineers' procedures and regulations. However, the Post Authorization Report notified Congress of required changes to the boundaries or locations of 19 sites to improve constructability. Specific legislative language is included in Public Law 104-303. Also, the views of interested parties, including federal, state, and local agencies, have been considered. On 23 June 1995, a Memorandum of Understanding was signed between ASA(CW) and Bureau of Indian Affairs (BIA) for the Corps to fund, in advance, the capitalized costs for long-term O&M for all sites. Public Law 104-109 authorizes transfer of funds to Department of Interior to be used for operation and maintenance of improved sites. In December 2000 Public Law 106-541 amended the project authorization to increase the acquisition limit from $2 million to $4 million. In March 2004, Public Law 108-204 amended the project authorization to include rehabilitation of Celilo Indian Village, Oregon.



Division: Northwestern

District: Portland

1 Febr[illegible]2010

Columbia River Treaty Fishing Access Sites,
Oregon and Washington
NV[illegible]6

APPROPRIATION TITLE: Construction, Hydropower (Major Rehabilitation), Fiscal Year 2011

PROJECT: Garrison Dam and Power Plant, North Dakota (Continuing)

LOCATION: The Garrison Dam Project is located in McLean and Mercer Counties in North Dakota on the Missouri River approximately 77 river miles upstream of Bismarck near Riverdale, North Dakota.

DESCRIPTION: Garrison Dam and Reservoir is a multi-purpose project consisting of a rolled earth-filled dam with a sheet pile cutoff, a hydroelectric power plant, and a reservoir with storage capacity of 23,821,000 acre feet for flood control, navigation, power, recreation, irrigation, and municipal supply. Five hydraulic turbine-driven generating units with a total plant rated capacity of 518 MW and the operation and maintenance facilities are housed in the powerhouse. The present hydropower benefits directly associated with Garrison Power Plant include (1) clean, non-polluting power generation for the region, and (2) average power generation revenues of about $33.6 million per year to the U.S. Treasury. This major rehabilitation project will replace the existing turbine runners on all five units with new runners designed to improve reliability and maximize efficiency over a broad range of operating conditions. A Phase II scope was added from an addendum to the major rehabilitation project that was approved on 15 September 2004. The Phase II work will address upgrades to electrical components that will allow the project to maximize the full reliability and efficiencies obtained in the powerhouse upgrades.

AUTHORIZATION: Flood Control Act of 1944, PL 78-534 (existing project)

REMAINING BENEFIT-REMAINING COST RATIO: 5.1 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 3.3 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7 3/4 percent (FY 1997)

BASIS OF BENEFIT-COST RATIO: Benefits are from the Garrison Dam & Power Plant Major Rehabilitation Evaluation Report approved 27 February 1995 at 1994 price levels. Phase II benefits are from the Garrison Dam & Power Plant Major Rehabilitation Evaluation Report Addendum approved 15 September 2004 at 2004 price levels.

SUMMARIZED FINANCIAL DATA:			ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement		$121,007,000	
Estimated Non-Federal Reimbursement		121,007,000	
Estimated Federal Cost (Ultimate)		0	
Estimated Non-Federal Cost		121,007,000	
Cash Contributions	$ 0		
Other Costs	0		
Reimbursement, Power	121,007,000		
Total Estimated Project Cost		121,007,000	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	67	2013
Phase I	100	
Phase II	24	

PHYSICAL DATA

Phase I

Power Installation:	3 Units at 109,250 KW
	2 Units at 95,000 KW

SUMMARIZED FINANCIAL DATA (continued)

Allocations through 30 September 2007	$63,221,000	
Allocations for FY 2008	5,805,000	
Allocations for FY 2009	3,349,000	
Recovery Act Allocations To Date	13,177,500	
Conference Allowance for FY 2010	8,144,000	
Allocation For FY 2010	8,144,000	
Allocations through FY 2010	93,696,500	77
Allocation Requested for FY 2011	11,088,000	87
Programmed Balance to Complete after FY 2011	0	
Unprogrammed Balance to Complete after FY 2011	0	

PHYSICAL DATA (continued)
Phase II
Electrical Reliability Equipment

JUSTIFICATION: All five of the Garrison turbine runners have experienced cracking at the trailing edges of their runner blades near the runner crown. Cracking was first discovered on Unit 3 in 1958 during an annual inspection. Cracking has continued through the years such that occasional repairs of blades in Unit 1 and annual-to-biennial repairs of blades in Units 2 through 5 must be performed. The continued cracking jeopardizes the future reliability of the runners, creating a potential for long outages due to a possible failure requiring complete shutdown of an affected unit. While no failures have occurred, continued weld repairs produce increasingly unfavorable metallurgy and residual stress distribution, increasing the probability of a failure. Studies indicate that without the proposed correction the failure probability will gradually increase until failure occurs. Installation of new improved turbine runners for all five units will avoid such reliability problems, both present and future, by correcting the cyclic loading which causes the turbine runner blade cracking. This will decrease operation and maintenance costs and extend the life of the hydropower plant. Lost plant efficiency will be restored and efficiency will be increased beyond the original 1950's design without an increase in cost over a replacement option using in-kind turbine runners. The addendum work will allow the plant to achieve full efficiencies and reliabilities obtained from the ongoing major rehabilitation work. The generator set-up (GSU) transformers, electrical power train equipment, and switchyard equipment are from the original construction of the project, circa 1950. All are underrated and exhibiting conditions indicating they are nearing the end of productive life. The reliability of the generating power onto the transmission system by the Garrison project is no greater than the least reliable equipment in the electrical power train. Prior to the ongoing rehabilitation, the turbine-generators were capable of producing 98 MW each. As a result of the ongoing rehabilitation, the turbines and generators both are capable of producing 112.5 MW each. The existing electrical power train equipment and systems, along with associated peripheral equipment including GSU transformers and oil-filled pipe cable, and switchyard are rated for the 98 MW capacities of the turbine-generators prior to rehabilitation. Although the capacity of the turbine-generators is significantly increased, their capability is currently limited to 98 MW by this equipment. Average annual benefits are as follows:

Annual Benefits	Amount
Deferred Maintenance Benefits	$ 3,144,100
Restored Efficiency Benefits	7,903,500
Efficiency Improved Benefits	5,457,400
Total Benefits	$16,505,000

FISCAL YEAR 2010: The allocated amount of $8,144,000 will be applied as follows:

Install two 115kv GSU transformers and seven SF6 high voltage breakers (new contract)	8,144,000
Total	$8,144,000

FISCAL YEAR 2011: The requested amount of $11,088,000 will be applied as follows:

Replace autotransformer, circuit breakers, reactors, and grounding mat (new contract)	11,088,000
Total	$11,088,000

NON-FEDERAL COSTS: Garrison Dam is a multi-purpose project, and the cost for the turbine runner modifications will benefit hydropower generation only. The hydropower from Garrison Powerplant is marketed by Western Area Power Administration (WAPA), through which project costs are ultimately repaid to the Treasury. WAPA has provided a letter stating that they "will be able to market any additional power gained through increased efficiency of the turbines."

STATUS OF LOCAL COOPERATION: N/A

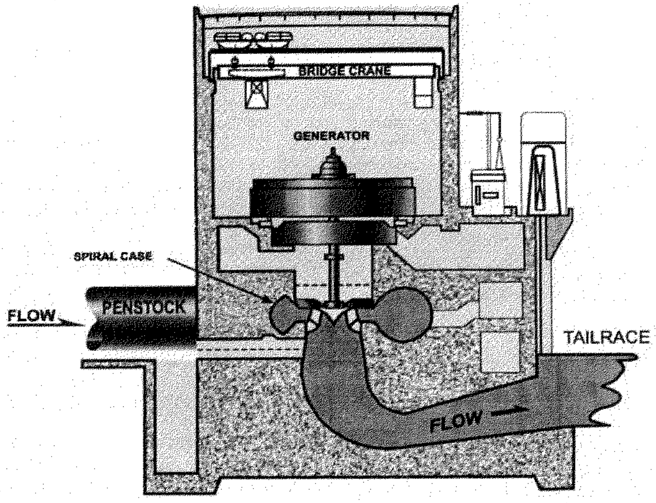
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $121,007,000 is unchanged from the latest estimate ($121,007,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The proposed rehabilitation is not a major Federal action that would significantly affect the quality of the human environment, and therefore did not require the preparation of an environmental impact statement. The U.S. Fish and Wildlife Service concurred with the "Finding of no Significant Impact."

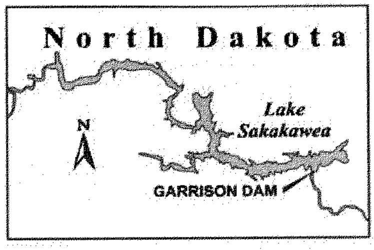
OTHER INFORMATION: This project consists of replacing all 5 turbine runners at the Garrison Dam Project. Turbine related work was completed under a furnish and install contract. Machining and painting work were subcontracted. The units removed were dismantled and sold as scrap metal, except for one unit that has become a display for the plant tourists. Additional work consisting of fabricating and installing new wicket gates and replacing existing circuit breakers and transformers was added to the project in FY00. Additional work consisting of removal of the existing generator coils and iron core, re-level and align the stator frame and purchase and install new laminations and coils was added to the project in FY02 as a result of unexpected shaft alignment problems on 3 generator units. There is no requirement to undertake fish and wildlife mitigation measures in conjunction with this rehabilitation project.

Now that the turbine and generator rehab is complete, the generators have increased capacity and ratings significantly greater than the capability of the existing electrical power train and peripheral equipment. The turbines and generators both are capable of producing 112.5 MW each. The existing electrical power train equipment and systems, along with associated peripheral equipment, are rated for 98 MW capacities of the turbines and generators prior to the rehabilitation. Although the capacity of the turbine generators is significantly increased, their capability is still limited to the 98MW of the existing equipment. Consequently an addendum to the Major Rehab report was prepared and approved on 15 September 2004. The addendum report includes replacement of the existing transformers, electrical power train, peripheral equipment, and switchyard equipment. The additional construction cost was originally estimated at $51,399,700 with an incremental benefit-to-cost ratio of 2.52.

Initial construction of the powerhouse was completed in 1955.



TRANSFER SECTION THRU
GARRISON DAM POWER PLANT



VICINITY MAP

Turbine Runnners Transformers, and Switchyard Equipment

- ▨ WORK COMPLETED
- ▧ WORK UNDERWAY WITH FUNDS AVAILABLE FOR THE CURRENT FISCAL YEAR
- ▚ WORK PROPOSED WITH FUNDS REQUESTED FOR THE BUDGET FISCAL YEAR
- ☒ WORK REQUIRED TO COMPLETE THE PROJECT AFTER THE BUDGET FISCAL YEAR

GARRISON DAM & POWER PLANT
NORTH DAKOTA
MAJOR REHABILITATION

U.S. Army Engineer District, Omaha
Northwestern Division
1 January 2010

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Albeni Falls Dam, Idaho

AUTHORIZATION: Construction of a multipurpose dam and powerhouse was authorized by the Flood Control Act of 1950 (Public Law 516, 81st Congress, Second Session with reference to Senate Doc 9, 81st Congress, 1st Session) Navigation, hydroelectric power and flood control are authorized under Public Law 81-516. Recreation was authorized in the Flood Control Act of 1944, Section 4 (PL 78-534).

LOCATION AND DESCRIPTION: Albeni Falls Dam is located 26 miles west of Sandpoint, Idaho and 4 miles east of Newport, Wash., near the Washington/Idaho border on the Pend Oreille River in Bonner County, Idaho. The dam is a 90-foot-high concrete gravity, gate-controlled structure with a spillway 472 feet long. Overall length, including the non-overflow abutment section, is 755 feet. Ten spillway gates are the vertical lift roller-chain type. The powerhouse contains three Kaplan turbines and generators for a total installed rated capacity of 42,600 kilowatts. The project is multi-purpose, providing flood control, power generation, and regulation of stream flow for 15 downstream federal and non-federal hydroelectric projects. Lake Pend Oreille water storage seasonally augments flows on the Columbia and Pend Oreille Rivers for power production downstream. Other purposes include navigation, recreation, and fish and wildlife conservation.

RECOVERY ACT ALLOCATIONS TO DATE: $2,472,500
CONFERENCE FOR FY 2010: $1,468,000
BUDGET FOR FY 2011: M: $547,000 **O**: $974,000 **T**:$1,521,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $29,000 – Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific

FRM: $14,000 – Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $1,439,000 – Albeni Falls has four major recreation areas and two day-use areas, with the largest campground program in Seattle District. The bulk of our budget is targeted for operating and maintaining recreation areas safely for public use. This includes hiring park attendants; recreation area garbage collection and grounds maintenance; utilities for all the facilities; maintaining the grounds, campsites, and beaches; water safety activities; and security for our visitors. A Class B Visitor Center with interpretive displays, restrooms, a theatre, and viewing areas is also operated and maintained.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $39,00 Albeni Falls must assure compliance with environmental mandates and legal requirements in areas such as mitigation compliance, endangered species protection, cultural resources management, healthy & sustainable lands and waters, Level One Natural Resources Inventory completion, and Master Plan completion.

WS: $0 – N/A

OTHER INFORMATION: N/A

Division: Northwestern District: Seattle Project Name: Albeni Falls, ID

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Applegate Lake, OR

AUTHORIZATION: PL 87-874, 1962 Flood Control Act

LOCATION AND DESCRIPTION: Near River Mile 46.5 on the Applegate River, 23.5 miles south of Medford, Oregon. Flood reduction, rock-fill embankment 1300 ft long and 242 ft high, gate controlled concrete spillway on left abutment, regulating outlet conduit and intake tower with multi-level intakes and reservoir. The project has 75,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 709,000
CONFERENCE AMOUNT FOR FY2010: $ 1,237,000
BUDGET FOR FY2011: **M**: $ 443,000 **O**: $ 855,000 **T**: $ 1,298,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 – N/A

FRM: $ 1,048,000 – Critical operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 0 – N/A

Hydro: $ 0 – N/A

ES: $ 250,000 – Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bear Creek Dam & Lake, CO

AUTHORIZATION: PL 90-483, PL 89-72.

LOCATION AND DESCRIPTION: Bear Creek Dam is located in the Denver metropolitan area on the southwest edge of Lakewood at the confluence of the Bear Creek and Turkey Creek. Construction was authorized in 1968 and was completed in 1982. The dam consists of two segments commonly referred to as the Main Embankment and the South Embankment. The main embankment measures 5,300 feet in length and has a maximum height of 179.5 feet; and the south embankment measures 2,100 feet in length with a maximum height of 65 feet. The reservoir impounded by the dam is 0.5 miles long with a maximum depth of 48 feet at the dam. The primary purpose of the dam is flood damage reduction. Fish and wildlife, and recreation are also authorized purposes.

RECOVERY ACT ALLOCATIONS TO DATE: $120,000
CONFERENCE AMOUNT FOR FY2010: $ 375,000
BUDGET FOR FY2011: **M**: $ 62,000 **O**: $ 585,000 **T**: $ 647,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 - N/A

FRM: $532,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Project is scheduled for a periodic inspection in FY11.

Rec: $6,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Specifically the funding will provide for the minimum real estate management needs of the project.

Hydro: $0 - N/A

ES: $109,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates. The current Master Plan was last updated in 1976.

WS: $0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Big Bend Dam & Lake Sharp, SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The Big Bend Project is located northwest of Chamberlain, South Dakota, on South Dakota Highway 47, near Ft. Thompson, South Dakota. Construction on the dam began in 1959 and closure of the embankment occurred in 1963. The dam measures 10,570 feet in length and has a maximum height of 95 feet. Lake Sharpe extends 80 miles upstream, creates 200 miles of shoreline, and has a maximum depth of 78 feet at the dam. The water in Lake Sharpe is stored for flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $3,282,000
CONFERENCE AMOUNT FOR FY2010: T: $9,383,000
BUDGET FOR FY2011: M: $4,480,000 **O**: $5,288,000 **T**: $9,768,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 - N/A

FRM: $0 - N/A

Rec: $800,000 – Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $7,889,000 – Funding will provide for operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures, dam safety monitoring, studies and inspections, reservoir scheduling and real estate management activities. Major non-routine work includes a dam safety exercise, work to meet NERC standards, repairs to additional hydropower plant waterstops, replacement of station service breakers and rehabilitation work on the powerhouse bridge crane.

ES: $1,079,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Blue River Lake, OR

AUTHORIZATION: P.L. 81-51, 1950 Flood Control Act

LOCATION AND DESCRIPTION: On Blue River, 38 miles east of Eugene, Oregon. Gravel fill embankment dam 1420 ft long, 319 ft high, spillway 70 ft long, outlet works in left abutment, earth and gravel-fill dike 1535 ft long between Blue and McKenzie Rivers and Reservoir, and recreation. The project has 85,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,102,900
CONFERENCE AMOUNT FOR FY2010: $ 893,000
BUDGET FOR FY2011: **M**: $ 54,000 **O**: $ 519,000 **T**: $ 573,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 -N/A

FRM: $ 518,000 - Critical operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 20,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 -N/A

ES: $ 35,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bonneville Lock and Dam, OR and WA

AUTHORIZATION: 1933 WPA project, 1935 PL. 409 and 1950 Flood Control Act PL. 81-516

LOCATION AND DESCRIPTION: On Columbia River, 42 miles east of Portland, Oregon; Multi-purpose w/power; dam, spillways and fish passage; navigation lock, two powerhouses with twenty generation units; a regional visitor center and recreation areas. The project has an hydropower installed capacity of 1,067 megawatts and a five-year average annual commercial lockage of 9.4 million tons.

RECOVERY ACT ALLOCATIONS TO DATE: $ 7,298,800
CONFERENCE AMOUNT FOR FY2010: $ 13,220,000
BUDGET FOR FY2011: **M**: $2,359,000 **O:** $5,128,000 **T:** $7,487,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 4,099,000 - Critical minimum navigation lock operations and maintenance including periodic navlock inspections. Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific and an alternative study on navlock monolith 18.

FRM: $ 0 -N/A

REC: $1,937,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $ 1,451,000 -Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and natural resource management and ESA mandates.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bowman Haley Dam & Lake, ND

AUTHORIZATION: PL 87-874

LOCATION AND DESCRIPTION: Located 11 miles south of Bowman, North Dakota on highway 85 then 5 miles east, Bowman-Haley Dam was constructed for flood damage reduction, fish and wildlife enhancement, recreation, as well as municipal and industrial water supply. Construction of the dam began in June 1964 and was completed in 1966. The dam measures approximately 5,730 feet in length, with a maximum height of 79 feet from the stream bed to the top of the dam. Bowman-Haley Lake formed at the confluence of Spring Creek, Alkali Creek, and North Fork Grand River; has 17 miles of shoreline and an average depth of 39 feet.

RECOVERY ACT ALLOCATIONS TO DATE: $219,000
CONFERENCE AMOUNT FOR FY2010: $333,000
BUDGET FOR FY2011: **M**: $50,000 **O**: $196,000 **T**: $246,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $194,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: $8,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Specifically the funding will provide for the minimum real estate management needs of the project.

Hydro: $0 – N/A

ES: $44,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chatfield Dam & Lake, CO

AUTHORIZATION: PL 81-516, PL 99-662, PL 89-72, PL 93-251

LOCATION AND DESCRIPTION: Chatfield Dam is located in the Denver metropolitan area southwest of Denver on the South Platte River. Construction was authorized in 1967 and was completed in 1975. The dam measures 13,136 feet in length and has a maximum height of 147 feet. Chatfield Lake is 2.0 miles long with a maximum depth of 47 feet at the intake tower. The authorized purposes of the dam are flood damage reduction, fish and wildlife, water supply, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: $618,000
CONFERENCE AMOUNT FOR FY2010: $1,370,000
BUDGET FOR FY2011: **M**: $268,000 **O**: $1,107,000 **T**: $1,375,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $1,116,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Major non-routine work includes repairs to gate seals and service gates and improvements to project security measures.

Rec: $143,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Specifically the routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $116,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cherry Creek Dam & Lake, CO

AUTHORIZATION: PL 77-228, PL 78-534, PL 79-732

LOCATION AND DESCRIPTION: Cherry Creek Dam is located in the Denver metropolitan area in Aurora, Colorado. Construction of the dam was authorized in 1948 and was completed in 1950. The dam measures 14,300 feet in length and has a maximum height of 141 feet. Cherry Creek Reservoir is 3.25 miles long with a maximum depth of 26 feet at the intake tower. The authorized purposes of the dam are flood damage reduction, fish and wildlife, and recreation.

RECOVERY ACT ALLOCATIONS TO DATE: $378,000
CONFERENCE AMOUNT FOR FY2010: $1,900,000
BUDGET FOR FY2011: **M**: $240,000 **O**: $817,000 **T**: $1,057,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $941,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Major non-routine work includes repairs to gate seals and service gates and improvements to project security measures.

Rec: $51,000 – Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Specifically the routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $65,000 – Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chetco River, OR

AUTHORIZATION: Rivers and Harbors Acts of 1950 and 1945, P.L. 79-14

LOCATION AND DESCRIPTION: On the Oregon Coast about 290 miles south of the mouth of the Columbia River; two stone jetties; 14 foot deep, 120 feet wide channel entrance; barge turning basin; and small boat access channel.

RECOVERY ACT ALLOCATIONS TO DATE: $ 314,300
CONFERENCE AMOUNT FOR FY2010: $ 864,000
BUDGET FOR FY2011: **M**: $543,000 **O:** $43,000 **T:** $586,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 586,000 - Annual dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chief Joseph Dam, WA

AUTHORIZATION: Rivers and Harbor Act of 1946 as modified by 1958 Fish and Wildlife Coordinator Act.

LOCATION AND DESCRIPTION: Chief Joseph Dam is located in Bridgeport, Washington, 545 river miles above the mouth of the Columbia River, 51 river miles downstream from Grand Coulee Dam. The dam consists of a 19-bay gated concrete gravity spillway that abuts the right bank and connects to a curved non-overflow concrete section founded on a rock outcropping. The 2,047-foot-long powerhouse encloses 27 main generators, 2 station service generators, maintenance shops and control room, and the visitor center. Routine hydropower and joint O&M costs, and capital investment costs, are direct funded by the Power Marketing Agency. Appropriation funds are used to continue normal O&M activities for the recreation program and for the gas abatement project capital improvements (spillway flow deflectors).

RECOVERY ACT ALLOCATIONS TO DATE: $500,000
CONFERENCE FOR FY 2010: $751,000
BUDGET FOR FY 2011: M: $78,000 **O**: $694,000 **T**: $772,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $0 – N/A

Rec: $772,000 Funding provides for routine operations and maintenance for recreation program at the Corps' largest hydropower project. Routine program includes operation of project Visitor Center, supports eleven public day-use areas,

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $0 – Routine environmental stewardship costs are directed funded by the Power Marketing Agency.

WS: $0 – N/A

OTHER INFORMATION: $0 – N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Clinton Lake, KS

AUTHORIZATION: Flood Control Act of 1962 (P.L. 87-874)

LOCATION AND DESCRIPTION: The project is located on the Wakarusa River, 1 mile west of Lawrence, in Douglas County, Kansas. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $5,545,000
CONFERENCE AMOUNT FOR FY2010: $1,970,000
BUDGET FOR FY2011: M: $495,000 **O**: $1,585,000 **T**: $2,080,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $897,000 – Critical routine operations and maintenance flood risk management.

Rec: $968,000 – Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $208,000 – This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, cool season to warm season grass conversion, gate installation and maintenance, controlled burns, flood plot development, detection and control of invasive species, boundary line maintenance/monitoring.

WS: $7,000 – Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cold Brook Dam & Lake, SD

AUTHORIZATION: PL 77-228, PL 78-534

LOCATION AND DESCRIPTION: Cold Brook Dam is located 1 mile north of Hot Springs South Dakota. The dam is 925 feet in length and has a height of 127 feet. Cold Brook Lake is 1.2 miles in length and its multipurpose pool contains 520 acre-feet of water. Cold Brook Dam was constructed to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The Flood Control Act of 1941 authorized the construction of these two dams and the channel improvements within the community of Hot Springs.

RECOVERY ACT ALLOCATIONS TO DATE: $329,000
CONFERENCE AMOUNT FOR FY2010: $414,000
BUDGET FOR FY2011: M: $771,000 **O**: $309,000 **T**: $1,080,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $980,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project. Major non-routine work includes downstream channels improvements to Evans Street culverts.

Rec: $66,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $34,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia and Lower Willamette Rivers, WA and OR

AUTHORIZATION: Rivers and Harbors Acts 1912 (30' channel), 1930 (deepen to 35'), 1962 (deepen to 40'), 1999 (deepen 43')

LOCATION AND DESCRIPTION: Columbia River Mouth to Vancouver, WA (106.5 miles) and Willamette River Mouth to Broadway Bridge (11.6 miles). The deep-draft federal navigation channel in the Columbia River from RM 3 to 106.5, and in the Willamette River from RM 0 to 11.6.

RECOVERY ACT ALLOCATIONS TO DATE: $ 4,416,000
CONFERENCE AMOUNT FOR FY2010: $ 23,278,000
BUDGET FOR FY2011: **M**: $21,974,000 **O:** $2,894,000 **T:** $24,868,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $24,868,000 - Annual dredging needed for safe transit of commercial and recreational vessels. Essential to meet ESA and NEPA requirements. Also includes US Moorings superfund site feasibility study, remedial action report, and coordination with regulating agencies.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia River at the Mouth, OR and WA

AUTHORIZATION: River and Harbor Act of 1884, as amended and River and Harbor Acts of 1905, (build Jetties and dredge) 1954 (deepen to 48'), 1983 (deepen to 55')

LOCATION AND DESCRIPTION: Entrance to the Columbia River between the states of Oregon and Washington. Deep Draft Navigation entrance channel 6 miles long, 2640 ft wide, 55/48 feet deep, north and south entrance jetties and interior jetty north side at river mile 3.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 12,302,000
BUDGET FOR FY2011: **M**: $12,560,000 **O:** $290,000 **T:** $12,850,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $12,850,000 - Annual dredging needed for safe transit of commercial and recreational vessels. Work is necessary to keep bar crossing possible for 7.5 months of rough seas. Also includes plans and specs for repair on North and South Jetty.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Columbia River between Vancouver, WA and The Dalles, OR

AUTHORIZATION: Rivers and Harbors Acts, 1937 (27' channel), 1946 P.L. 79-525

LOCATION AND DESCRIPTION: Columbia River between Vancouver, Washington and the Dalles, Oregon. The deep-draft Federal navigation channel in the Columbia River from RM 106.5 at Vancouver, WA, to RM 192 at The Dalles Dam.

RECOVERY ACT ALLOCATIONS TO DATE: $ 174,000
CONFERENCE AMOUNT FOR FY2010: $ 655,000
BUDGET FOR FY2011: **M**: $ 479,000 **O:** $ 166,000 **T:** $ 645,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 645,000 - Routine dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Coos Bay, OR

AUTHORIZATION: Rivers and Harbor Acts of 1910 (dredging), 1919 (22' channel), 1930 (deepen to 24'), 1970 (deepen to 45'), 1995 (deepen to 47')

LOCATION AND DESCRIPTION: Coos Bay is located on the central Oregon coast at Coos Bay, Coos County, Oregon about 200 miles south of the Columbia River. The existing project includes: two rubble-mound, high tide jetties at the entrance; a channel across the outer bar 47 feet deep and 700 feet wide, dimensions reducing gradually to 37 feet deep and 300 feet wide at River Mile 1, an inner channel 37 feet deep and 300 feet wide to River Mile 9, thence a channel 37 feet deep and 400 feet wide to River Mile 15; two turning basins; and a boat basin access channel located in Charleston.

RECOVERY ACT ALLOCATIONS TO DATE: $ 6,113,000
CONFERENCE AMOUNT FOR FY2010: $ 4,904,000
BUDGET FOR FY2011: **M**: $ 4,115,000 **O:** $ 582,000 **T:** $ 4,697,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 4,697,000 -Annual dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Coquille River, OR

AUTHORIZATION: Rivers and Harbors Act of 1910, P.L. 61-264

LOCATION AND DESCRIPTION: On the Oregon Coast about 225 miles south of the Columbia River. Two stone jetties; 13 feet deep, 6,000 feet long channel entrance. Small boat access channel with a protective rubble mound structure.

RECOVERY ACT ALLOCATIONS TO DATE: $ 88,700
CONFERENCE AMOUNT FOR FY2010: $ 437,000
BUDGET FOR FY2011: **M**: $ 342,000 **O:** $ 91,000 **T:** $ 433,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 433,000 - Annual dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cottage Grove Lake, OR

AUTHORIZATION: 1938 Flood Control Act. P.L. 75-761

LOCATION AND DESCRIPTION: On Coast Fork of Willamette River, Oregon River Mile 29, about 25 miles S.E. of Eugene, Oregon. Flood reduction and earth fill dam 1750 ft long, and concrete gravity spillway 264 ft long, outlet works consisting of three gate-controlled conduits, and recreation sites. The project has 30,060 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 360,600
CONFERENCE AMOUNT FOR FY2010: $ 1,074,000
BUDGET FOR FY2011: **M**: $ 127,000 **O:** $ 1,192,000 **T:** $1,319,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 - N/A

FRM: $ 726,000 - Critical operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $316,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - N/A

ES: $277,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cottonwood Springs Dam & Lake, SD

AUTHORIZATION: PL 77-228, PL 78-534.

LOCATION AND DESCRIPTION: Cottonwood Springs Dam is located 4.5 miles west of Hot Springs South Dakota. The dam and channel improvements were constructed under the authorization of Flood Control Act of 1941 to reduce flood damage in the Fall River basin. In years past, the Fall River was subject to flash flooding, causing damage to Hot Springs, South Dakota and nearby rural areas. The dam is 1,190 feet in length and stands 123 feet high.

RECOVERY ACT ALLOCATIONS TO DATE: $659,000
CONFERENCE AMOUNT FOR FY2010: $258,000
BUDGET FOR FY2011: M: $75,000 **O**: $210,000 **T**: $285,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $192,000 - Funding will be used to meet the O&M requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: $59,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $34,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cougar Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On South Fork McKenzie River, 42 miles east of Eugene, Oregon. Multi-purpose with power; dam, spillway and powerhouse with 2 generating units. The project has an hydropower installed capacity of 25 megawatts and 219,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 505,900
CONFERENCE AMOUNT FOR FY2010: $ 1,503,000
BUDGET FOR FY2011: **M**: $ 99,000 **O:** $1,634,000 **T:** $ 1,733,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 5,000 - Provides the critical navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 507,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 30,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: $ 1,148,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $43,000 - Provides the critical water supply component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Detroit Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On North Santiam River 45 miles S.E. of Salem, Oregon. This is a multi-purpose project with hydropower; main dams and spillways include; powerhouse with two generating units and a re-regulating dam (Big Cliff and powerhouse with one generating unit, and recreation. The project has an hydropower installed capacity of 118 megawatts and 454,900 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 82,400
CONFERENCE AMOUNT FOR FY2010: $ 902,000
BUDGET FOR FY2011: **M**: $ 84,000 **O:** $1,043,000 **T:** $ 1,127,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 4,000 - Provides the navigation component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 540,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 65,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: $ 413,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 105,000 - Provides the critical water supply component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dorena Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On Row River, Oregon, River Mile 7 about 20 miles S.E. of Eugene, Oregon. Flood reduction, earth fill dam 3352 ft long, 131 ft high, spillway 200 ft long, outlet works include five conduits controlled by hydraulic operated slide gates and reservoir, and recreation sites. The project has 70,500 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 634,600
CONFERENCE AMOUNT FOR FY2010: $ 1,102,000
BUDGET FOR FY2011: **M:** $ 103,000 **O:** $ 952,000 **T:** $ 1,055,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 -N/A

FRM: $ 558,000 - Critical routine operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 265,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 -N/A

ES: $ 232,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dworshak Dam and Reservoir, ID

AUTHORIZATION: PL 87-874 (Flood Control Act of 1962)

LOCATION AND DESCRIPTION: Project is located in Northern Idaho on the north fork of the Clearwater River. The project is part of the Federal Columbia River Power System. The project includes the dam, a reservoir that has a gross storage capacity of 3,468,000 acre-feet of water, a powerhouse with an installed capacity of 400 Megawatts, 30,935 acres of land that provides recreation facilities and wildlife mitigation habitat, and the Dworshak National Fish Hatchery.

RECOVERY ACT ALLOCATIONS TO DATE: $2,375,000
CONFERENCE AMOUNT FOR FY2010: $2,732,000
BUDGET FOR FY2011: **M**: $903,000 **O**: $2,062,000 **T**: $2,965,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $117,000 – Provides critical operations and maintenance the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $635,000 – Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $1,043,000 – Funding for operation and maintenance of recreational sites/facilities and programs, re-opening of park(s) to accommodate visitation not accommodated in initial.

Hydro: $ 0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: $1,170,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for Dworshak Fish Hatchery and biological opinions for Federally listed endangered or threatened species.

WS: $ 0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ediz Hook, WA

AUTHORIZATION: 1974 Water Resources Development Act, Section 4 (PL 93-251)

LOCATION AND DESCRIPTION: Located on the southern shore of the Strait of Juan de Fuca along the spit that forms Port Angeles Harbor. The Ediz Hook project provides beach erosion control. The project maintains about 13,300 lineal feet of rock revetment and 3,100 lineal feet of rock blanketing and periodic beach renourishment. A US Coast Guard station is located on the eastern tip of the spit. The project protects the only road access to the USCG and public access to the spit.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $694,000
BUDGET FOR FY 2011: **M**: $0 **O**: $30,000 **T**: $30,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $30,000 – funding provides for routine condition surveys of areas surrounding Ediz Hook, which is a dynamic system which experiences substantial erosion, requiring jetty and beach repair. The surveys allow trends to be evaluated to allow better anticipation of the upcoming trouble areas on the Ediz Hook. The USCG incrementally loses beach and slope armoring surrounding the USCG airfield, which makes this survey work essential.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Elk Creek Lake, OR

AUTHORIZATION: Flood Control Act of 1962, as amended.

LOCATION AND DESCRIPTION: Elk Creek Lake is located in Jackson County, Oregon on Elk Creek, a tributary of Rogue River at River Mile 1.7 approximately 26.5 miles north of the city of Medford. Elk Creek Dam was partially completed prior to a court injunction stopping construction.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 0
BUDGET FOR FY2011: **M**: $ 5,000 **O:** $ 82,000 **T:** $ 87,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 -N/A

FRM: $ 33,000 - New transfer from Construction to Operations and Maintenance in FY11. Critical routine operation and maintenance of partially completed flood control dam and service facilities.

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 54,000 – Funds provide for minimum routine management of the project's natural resources.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Everett Harbor and Snohomish River, WA

AUTHORIZATION: River and Harbor Act of June 25, 1910 and modified by subsequent acts.

LOCATION AND DESCRIPTION: Located in central Puget Sound on the eastern shore of Possession Sound. The project channel runs approximately six miles upstream from its mouth at Port Gardner Bay. The project accommodates deep draft shipping in its outer harbor and also barge traffic on the Snohomish River. The project provides for the East Waterway, a 30-foot-deep, 900 feet wide and 2,400 feet long channel leading to the facilities on the west side of the Everett Navy Home Port. There is also an 8 to 15 foot-deep by 150-foot-wide channel up the Snohomish River. The project includes two settling basins to concentrate shoaling and promote maintenance dredging efficiency. The lower river channel is flanked by a system of training and spur dikes.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: T: $1,678,000
BUDGET FOR FY 2011: M: $795,000 **O**: $211,000 **T**: $1,006,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,006,000 – funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; pipeline dredging of upstream settling basin with upland disposal. Channel project condition survey will be conducted to report conditions to users and ongoing coordination on sediment characterization regarding ongoing maintenance coordination.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fall Creek Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Fall Creek 19 miles S.E. of Eugene, Oregon; flood reduction dam 5100 ft long, 180 ft high, gate controlled spillway, stilling basin and reservoir, and recreation sites. The project has 115,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,303,300
CONFERENCE AMOUNT FOR FY2010: $ 1,771,000
BUDGET FOR FY2011: **M**: $ 202,000 **O:** $ 947,000 **T:** $ 1,149,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 -N/A

FRM: $ 620,000 - Critical routine operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 46,000 -Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities

Hydro: $ 0 -N/A

ES: $ 483,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fern Ridge Lake, OR

AUTHORIZATION: 1938 Flood Control Act, P.L. 75-761

LOCATION AND DESCRIPTION: On Long Tom River Oregon, River Mile 24 about 10 miles west of Eugene, Oregon; flood reduction, earth fill dam 6330 ft long, two auxiliary dikes, spillway with six automatic radial gates, outlet works in spillway structure and reservoir, and recreation sites. Long Tom River Channel downstream of dam. The project has 110,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,146,700
CONFERENCE AMOUNT FOR FY2010: $ 2,245,000
BUDGET FOR FY2011: **M**: $ 164,000 **O:** $1,636,000 **T:** $ 1,800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 -N/A

FRM: $ 992,000 - Critical operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 186,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 -N/A

ES: $ 622,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and natural resource management and ESA mandates.

WS: $ 0 -N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Randall Dam & Lake Francis Case, SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: Fort Randall Dam is located 12 miles west of Wagner, South Dakota on Highway 46 or 25 miles northeast of Spencer, Nebraska on U.S. Highway 281. Construction on Fort Randall Dam began in 1946 and was completed in 1956. The dam measures 10,700 feet in length and has a maximum height of 140 feet. Lake Francis Case extends 107 miles upstream, creates 540 miles of shoreline, and has a maximum depth of 140 feet at the dam. The water in Lake Francis Case is stored for flood damage reduction, power generation, navigation support, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $3,754,000
CONFERENCE AMOUNT FOR FY2010: $11,604,000
BUDGET FOR FY2011: **M**: $2,040,000 **O**: $6,930,000 **T**: $8,970,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $883,000 – Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $1,208,000 - Provides the flood risk management component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $201,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include but not be limited to recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $5,638,000 - Provides for the operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures; and the hydropower component of joint activities including dam safety monitoring, studies and inspections, reservoir scheduling and real estate management.

ES: $1,040,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Peck Dam & Lake, MT

AUTHORIZATION: PL 74-409, PL 75-259, PL 75-529, PL 74-409, PL 92-500, PL 93-205, PL 99-662

LOCATION AND DESCRIPTION: Fort Peck Dam construction began in 1933 and was completed in 1940. The largest hydraulically filled dam in the United States, it measures 21,026 feet in length and has a maximum height of 250.5 feet. The lake behind the dam measures 134 miles long and has 1,520 miles of shoreline, and a maximum depth of 220 feet. The water at Fort Peck is stored for the flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality. The project is located 20 miles southeast of Glasgow, Montana on Montana Highway 24 or 10 miles southwest of Nashua, Montana on Montana Highway 117.

RECOVERY ACT ALLOCATIONS TO DATE: $6,062,000
CONFERENCE AMOUNT FOR FY2010: $6,045,000
BUDGET FOR FY2011: M: $1,326,000 **O**: $4,085,000 **T**: $5,411,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $686,000 - Provides the navigation component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $937,000 - Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $1,376,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $1,783,000 – Provides for the operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures; and the hydropower component of joint activities including dam safety monitoring, studies and inspections, reservoir scheduling and real estate management. Major non-routine work includes replacement of low voltage breakers, power plant 1 roof replacement and a plant major rehabilitation study.

ES: $629,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master/management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Garrison Dam & Lake Sakakawea, ND

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The project is located 75 miles upstream from Bismarck, North Dakota; travel north on highway 83 to the junction with state highway 200, then west 10 miles. Garrison Dam construction began in 1947 and was completed in 1953. It is the 5th largest dam in the United States and measures 13,200 feet long and has a maximum height of 210 feet. The reservoir formed by the dam, Lake Sakakawea, is 178 miles long with approximately 1,300 miles of shoreline and a maximum depth of 180 feet. The water at Garrison Dam is stored for flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $6,365,000
CONFERENCE AMOUNT FOR FY2010: $14,946,000
BUDGET FOR FY2011: **M**: $4,490,000 **O**: $8,074,000 **T**: $12,564,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,341,000 – Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $2,112,000 – The funding will provide for routine critical operation and maintenance, monitoring, evaluation and necessary engineering support for the Williston Levee. Provides the flood risk management component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $764,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $6,265,000 - Provides for the routine operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures; and the hydropower component of joint activities including dam safety monitoring, studies and inspections, reservoir scheduling and real estate management. Major non-routine work includes work to meet NERC standards and dredging and repairs to the spillway approach channel.

ES: $2,082,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. Activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master/management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gavins Point Dam, Lewis and Clark Lake, NE & SD

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: Gavins Point Dam is located 4 miles west of Yankton, SD on Highway 52, south across the dam or 13 miles north of Crofton, NE on Highway 121. Gavins Point Dam construction began in 1952 and was completed in 1956. The dam measures 8,700 feet in length and has a maximum height of 74 feet. Lewis and Clark Lake is 25 miles long, creates 90 miles of shoreline, and has a maximum depth of 45 feet at the dam. Water in reservoir is stored for flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $5,486,000
CONFERENCE AMOUNT FOR FY2010: $7,759,000
BUDGET FOR FY2011: **M**: $1,144,000 **O**: $6,562,000 **T**: $7,706,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $511,000 – Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $700,000 – Provides the flood risk management component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $886,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $4,425,000 - Provides for the operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures; and the hydropower component of joint activities including dam safety monitoring, studies and inspections, reservoir scheduling and real estate management.

ES: $1,184,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Grays Harbor and Chehalis River, WA

AUTHORIZATION: The Rivers and Harbors Act of 30 August 1935 and Section 202 of WRDA 1986.

LOCATION AND DESCRIPTION: Grays Harbor is located in southwest coast of Washington state. The project's 24-mile long channel serves deep-draft commerce to the Port of Grays Harbor and facilities at the cities of Aberdeen, Hoquiam and Cosmopolis. The deep-draft channel is secured by a complex system of coastal structures including the north and south jetties, groin, revetments and timber breakwaters. The North Jetty is at the south end of Ocean Shores and the South Jetty is at Westport, near Half Moon Bay. The complex navigation project is large with ongoing Federal O&M activities including required dredging on an annual basis.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,921,000
CONFERENCE FOR FY 2010: $10,587,000
BUDGET FOR FY 2011: M: $9,815,000 **O:** $735,000 **T**: $10,550,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $10,550,000 – funding provides for routine operations and maintenance for navigation; critical fleet maintenance support service; contract clamshell dredging of the inner harbor channels will be continued with open water disposal. Government hopper dredges YAQUINA and ESSAYONS will be used to provide safe bar and entrance channel conditions. Project condition surveys will be conducted to apprise navigation users and the USCG of channel conditions with sediment characterization continued for open water and beneficial use disposal of the dredged resources.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Green Peter – Foster Lakes, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: Foster Lake is on the South Santiam River 7 miles downstream from Green Peter Lake which is on the middle of the Santiam River about 35 miles N.E. of Eugene, Oregon. Multi-purpose w/power; main dams and spillways including powerhouse with two generating units and a re-regulating dam (Foster) and powerhouse with two generating unit, and recreation sites. The project has an hydropower installed capacity of 100 megawatts and 491,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 2,359,000
CONFERENCE AMOUNT FOR FY2010: $ 3,469,000
BUDGET FOR FY2011: **M:** $ 282,000 **O:** $ 1,857,000 **T:** $ 2,139,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 6,000 - Provides the navigation component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 865,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 265,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: $ 886,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $117,000 - Provides the water supply component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Harlan County Lake, NE

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Harlan County Lake is located in south central Nebraska on the Republican River, 7 miles east of Alma and 60 miles south of Kearney, Nebraska. Project purposes include flood protection, irrigation, recreation, fish and wildlife, and water quality benefits to the south central Nebraska, north central Kansas regions.

RECOVERY ACT ALLOCATIONS TO DATE: $5,211,000
CONFERENCE AMOUNT FOR FY2010: $2,197,000
BUDGET FOR FY2011: **M**: $688,000 **O**: $1,534,000 **T**: $2,222,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – NA.

FRM: $1,215,000 - Critical routine operations and maintenance flood risk management.

Rec: $844,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $163,000 - Cultural resource management which provides for basic stewardship of cultural resources in compliance with Sections 106 and 110 of the National Historic Preservation Act. Also, basic stewardship which supports the prudent, reasonable, and efficient management and maintenance of project natural resources to prevent direct, immediate degradation or loss. This would encompass project water and land management, to include; mixed-grass prairie plant communities and forested/woody vegetation.

WS: $0– NA.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Harry S Truman Dam and Reservoir, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941(P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: Harry S Truman Dam is located 1 mile west of Warsaw, Missouri. This project provides flood protection, hydropower, water supply, fish and wildlife, and recreation to central Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $5,750,000
CONFERENCE AMOUNT FOR FY2010: $8,926,000
BUDGET FOR FY2011: **M**: $4,671,000 **O**: $4,171,000 **T**: $8,842,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $712,000 - Critical routine operating costs necessary to meet minimum operating requirements of the power plant, and generation and transmission equipment. Also, critical remaining routine program joint maintenance and repair costs (i.e. vegetation removal, dam safety inspections, instrumentation, etc.) necessary for the safe operation of the dam, and joint operating costs necessary for water management (water control & quality) activities.

Rec: $2,780,000 - Activities required to open parks to accommodate visitation.

Hydro: $4,270,000 - Essential operating costs necessary to meet minimum operating requirements of the power plant. Funds critical routine operations of generation and transmission equipment. The power plant plays a critical part in producing power for customers within the Southwestern Power Administrations region. Failure to fund this item will result in lost power production, lost revenue for the US Treasury, and customers having to purchase replacement power at higher rates.

ES: $1,073,000 - This is the minimum amount necessary to accomplish the essential and critical natural resource work efforts which includes tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, and lake wide water sampling. It also includes monitoring of bald eagle nests, monitoring activities and field investigations related to requests for uses of project lands, and investigations for consent-to-easement requests on 102,000 acres of flowage easement lands.

WS: $7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hills Creek Lake, OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Middle Fork Willamette River, 45 miles S.E. of Eugene, Oregon; Multi-purpose w/power; Dam, spillway and powerhouse with two generating units, and recreation. The project has an hydropower installed capacity of 30 megawatts and 356,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 709,500
CONFERENCE AMOUNT FOR FY2010: $ 801,000
BUDGET FOR FY2011: **M**: $ 53,000 **O:** $ 810,000 **T:** $ 863,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 11,000 - Provides the navigation component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 486,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 26,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of Hydropower plant are direct funded by the Power Marketing Agency.

ES: $254,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 86,000 - Provides the water supply component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hillsdale Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located approximately 12 miles above the mouth of Big Bull Creek, a tributary of the Marais des Cygnes River and about 2 ½ miles west of Hillsdale, in Miami County, Kansas. This project provides flood protection, water supply, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $597,000
CONFERENCE AMOUNT FOR FY2010: $817,000
BUDGET FOR FY2011: M: $150,000 **O**: $641,000 T: $791,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $630,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: $84,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $72,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, flood plot development, detection and control of invasive species, lake water sampling, and bald eagle nest protection and monitoring of two eagle nests.

WS: $5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Howard A. Hanson Dam, WA

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The project is located on the upper reach of the Green-Duwamish River in King County, 63.76 river miles above the mouth. It is in the city of Tacoma's municipal watershed, 35 road miles east of Tacoma and 24 miles from Mud Mountain Dam. This project is protected from public access. The facility provides flood protection within the Green-Duwamish watershed with an accumulative flood prevention benefit of over $752 million since 1962 ($3.4 million prevented in FY05 alone). The Biological Opinion and the Endangered Species Act mandate the construction and annual maintenance of mitigation sites consisting of gravel and woody debris below the dam. In FY 2007 O&M became responsible for maintenance of these newly constructed mitigation sites.

RECOVERY ACT ALLOCATIONS TO DATE: $ 15,654,000
CONFERENCE FOR FY 2010: $3,511,000
BUDGET FOR FY 2011: **M**: $1,183,000 **O**: $2,093,000 **T**: $3,276,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $2,430,000, Routine operations and maintenance activities as budget allows. Continue to monitor and support the risk management efforts for the right abutment. Continue to support the fish passage facility construction efforts.

REC: $0 – N/A

Hydro: $0 – N/A

ES: $833,000, Continue in-river deposition of woody debris and gravel for mitigation. Continue efforts with implementation of the Reasonable and Prudent Measures in the Biological Opinion.

WS: $13,000, Continue to support the water supply mission and to interface with the City of Tacoma water system.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ice Harbor Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 12 miles east of Pasco Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 603 Megawatts, a navigation lock with a vertical lift of 100 feet, two fish ladders, a reservoir that has a water surface area of 9,200 acres, 3,576 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $3,734,000
CONFERENCE AMOUNT FOR FY2010: $5,539,000
BUDGET FOR FY2011: M: $2,027,000 **O**: $2,120,000 **T**: $4,147,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,945,000 – Routine and non-routine operation and maintenance , includes Critical Nav Lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $0 – N/A

Rec: $1,413,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and other means to accommodate visitation not accommodated in initial.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $789,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Jackson Hole Levees, WY

AUTHORIZATION: PL 81-516 (Flood Control Act of 1950)

LOCATION AND DESCRIPTION: Project is located in Western Wyoming on the Snake River near Jackson Hole Wyoming. The project includes 22 miles of levees located on both sides of the Snake River and 2.5 miles on the Gros Ventre River. The levees provide flood control protection.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $833,000
BUDGET FOR FY2011: **M**: $ 789,000 **O**: $212,000 **T**: $1,001,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $1,001,000 – Funding for routine annual maintenance and levee patrol, periodic inspection with local sponsor, environmental compliance for flood damages. Funding for non-routine activities to replace deteriorated riprap as a result of weathering, and for flood fighting activities due to high waters on the Snake River from high rainfall and/or snow runoff.

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: John Day Lock and Dam, OR and WA

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: On Columbia River, 112 miles East of Portland, Oregon. The project is multi-purpose w/power consisting of one dam, spillways, fish passage, one navigation lock, one powerhouse w/16 generation units, and recreation sites. The project has an hydropower installed capacity of 2,160 megawatts, a five-year average annual commercial lockage of 98.0 million tons, and 500,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 20,377,900
CONFERENCE AMOUNT FOR FY2010: $ 8,459,000
BUDGET FOR FY2011: **M**: $ 6,421,000 **O:** $ 3,296,000 **T:** $ 9,717,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 6,637,000 - Critical minimum navigation lock operations and maintenance including periodic NavLock inspections. Also includes engineering and design for foundation grouting and monolith cracks. Installation of NavLock Friction Drum during scheduled extended lock outage. Provides the navigation component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 219,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 973,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of the hydropower plant are direct funded by the Power Marketing Agency.

ES: $ 1,888,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kanopolis Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-534)

LOCATION AND DESCRIPTION: The project is located on the Smoky Hill River, about 184 river miles above the mouth of the stream, and about 11 miles northwest of Marquette, Kansas. This project provides flood protection and recreation for central Kansas.

RECOVERY ACT ALLOCATIONS TO DATE: $2,869,000
CONFERENCE AMOUNT FOR FY2010: $2,174,000
BUDGET FOR FY2011: **M**: $397,000 **O**: $1,164,000 **T**: $1,561,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $797,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: $577,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $179,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $8,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lake Crockett (Keystone Harbor), Washington

AUTHORIZATION: River and Harbor Act of 2 March 1945

LOCATION AND DESCRIPTION: Keystone Harbor is a small moorage basin located on Whidbey Island in northern Puget Sound. The project provides for a boat ramp, breakwater and a 6-acre basin and channel (25 ft. deep, 200-ft. wide, 1,500 ft. long) connecting Admiralty Inlet with Lake Crockett. The stone breakwater protects the channel into the ferry dock for the east end of the Keystone-Port Townsend, Washington State Ferry (WSF) route. In 2005, WSF Department of Transportation reported 778,263 total riders (370,585 ferry passengers and 407,678 vehicles) traveling this route. In 2006, the Keystone State Ferry transported nearly 800,000 passengers, and over 400,000 vehicles, using one 130-car ferry. The basin also provides a harbor of refuge for small craft. The project is located next to a state park and within the bounds of the Ebey's Landing National Historical Reserve. An underwater park is operated by the state adjacent to the breakwater and beach where disposal operations take place. All maintenance/disposal activities are coordinated to avoid impacting the recreation and transportation facilities

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: T: 0
BUDGET FOR FY 2011: M: $550,000 **O**: $. **T**: $550,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $550,000 – Funding provides for routine operations and maintenance for navigation dredging with upland disposal. The principle user of the project is the Washington State Ferries, which provides access to and from Whidbey Island and mainland Washington State. Washington State Ferries are part of the state highway system; in this case, the continuation of State Route 20.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lake Washington Ship Canal, WA

AUTHORIZATION: River and Harbor Act of 1910, House Document 953, 60th Congress.

LOCATION AND DESCRIPTION: Located in the City of Seattle, the 30-foot deep canal connects Puget Sound on the west with Lake Washington eight miles to the east. A dam, gated spillway, fish ladder and two navigational locks are located 1½ miles east of the west entrance. The canal and locks provide a navigation link from freshwater Lake Washington and Lake Union to the saltwater Puget Sound. The project has materially contributed to the industrial, commercial and recreational development of the area. Since 1995, an average of 16,181 lockage's, 69,000 boats and over 1.5 million tons of cargo has passed through the locks annually.

RECOVERY ACT ALLOCATIONS TO DATE: $ 2,000,000
CONFERENCE FOR FY 2010: $8,787,000
BUDGET FOR FY 2011: M: $742,000 **O**: $7,534,000 **T**: $8,276,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

NAV: $6,900,000 Funding provides for routine operations and maintenance for navigation, including 24/7 year-round staffing for lock operations to transit 69,000 commercial and recreational boats. In addition, this funding would be used for electrical, mechanical and structural evaluations for seismic safety.

FRM: $0 – N/A

Rec: $740,000 Funding provides routine operations and maintenance for recreation program including uniformed rangers and grounds maintenance staff. Funds provide for contract to operator the Visitor Center, tour program and environmental education programs.

Hydro: $0 – N/A

ES: $636,000 – Funding provides routine operations and maintenance for fish passage facilities, regional coordination of fish and wildlife activities and district support for listed endangered species. Funding is necessary to carry out critical requirements for ESA-listed species to meet Biological Opinions for bull trout, Chinook salmon, and steelhead.

WS: $0 – N/A

OTHER INFORMATION: This is the busiest navigation lock in the United States. The recreation area of the project receives over one million visitors per year. The project is initiating planning for its centennial celebration. Many project features are in need of updating for visitor health and safety in anticipation of extremely large crowds. The project has a long list of deferred maintenance for electrical and mechanical features that have exceeded their expected lifespan. Continued deterioration would affect the project's ability to maintain its navigation mission and control the elevation of Lake Washington. Floating bridges could be impacted. Recently-issued biological opinions are increasing funding needs for juvenile and adult fish passage, such as new valve mechanical operators.

Division: Northwestern District: Seattle Project Name: Lake Washington Ship Canal, WA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Libby Dam (Lake Koocanusa), MT

AUTHORIZATION: Flood Control Act of 1950 (PL81-516)

LOCATION AND DESCRIPTION: Libby Dam is located on the Kootenai River in Lincoln County, Montana, 17 road miles northeast of the town of Libby on State Highway 37. The Libby Dam is a multi-purpose concrete gravity dam. Its operations primarily benefit flood control, power generation and regulation of stream flow for 16 downstream hydroelectric projects. The powerhouse came on line in 1975. Libby Dam's reservoir, Lake Koocanusa, is 90 miles long. Other purposes include navigation, irrigation, recreation and fish migration. Libby Dam serves as an upper drainage flood storage facility. This storage represents more than 30% of the water storage capacity in the Federal Columbia River Power System. The original planning value of Libby Dam allocated 22% of the value of Libby to its FRM mission. The total Flood Damage reduction value for Libby Dam since construction is approximately $200 million.

RECOVERY ACT ALLOCATIONS TO DATE: $320,000
CONFERENCE FOR FY 2010: $1,851,000
BUDGET FOR FY 2011: M: $165,000 **O**: $1,681,000 **T**: $1,846,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $772,000 – Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $622,000 – Recreation is one of the congressionally authorized purposes as part of the enabling legislation that authorized Libby Dam. Included in this mission is a Class A Visitor Center, campgrounds, boats ramps, swimming facilities and day use areas.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $452,000 – Libby Dam carries out the full range of responsibilities in public lands stewardship, including fish and wildlife, ESA requirements, water quality and monitoring, environmental compliance coordination, and forestry.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Little Blue River Lakes, MO

AUTHORIZATION: Flood Control Act of 1968 (Public Law 90-483)

LOCATION AND DESCRIPTION: This project consists of two lakes in Jackson County, Missouri, located in Kansas City, Missouri and suburban communities. The Blue Springs Lake site is on the East Fork of the Little Blue River about ½ mile south of U.S. Highway 40, and the Longview Lake site is on the main stem at approximately 109th Street. The project provides flood protection, water quality, and recreation to the surrounding area, and greater metropolitan Kansas City, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $957,000
CONFERENCE AMOUNT FOR FY2010: $803,000
BUDGET FOR FY2011: **M**: $147,000 **O**: $594,000 **T**: $741,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – NA.

FRM: $630,000 - Critical routine operations and maintenance flood risk management.

Rec: $20,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $85,000 - To provide basic cultural resources stewardship and compliance with Sec. 106 & 110 of the National Historic Preservation Act, to include investigations, project review, field investigations, and coordination with state historic preservation officers and Native American Tribes. Other mandated activities include oversight of historic properties and updating historical property management plans. Also, provide basic resource management program oversight and protection programs, and real estate program guidance and oversight. Plant trees, mow early successional fields, spray herbicide to control invasive species, and patrol known sites and shorelines for possible looting or vandalism.

WS: $6,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Little Goose Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 50 miles west of Lewiston Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, one fish ladder, a reservoir that has a water surface area of 10,025 acres, 5,398 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $1,507,000
CONFERENCE AMOUNT FOR FY2010: $2,424,000
BUDGET FOR FY2011: M: $1,349,000 **O**: $965,000 **T**: $2,314,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,591,000 – Routine and non-routine operation and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys, Snake River Programmatic Sediment Management Plan (PSMP) continuation. Interim Risk Reduction Measures funding for critical work on deteriorated waterstops. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $0 – N/A

Rec: $481,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and combination of re-opening parks and other means.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $242,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 clearances.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Long Branch Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (Public Law 89-298)

LOCATION AND DESCRIPTION: The project is located on the East Fork Little Chariton River in north central Missouri, about 2 miles west of Macon, in Macon County. This project provides flood protection, water supply, water quality, and recreation for north central Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $831,000
CONFERENCE AMOUNT FOR FY2010: $902,000
BUDGET FOR FY2011: **M**: $221,000 **O**: $720,000 **T**: $941,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – NA.

FRM: $693,000 - Critical routine operations and maintenance flood risk management.

Rec: $141,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $102,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Also, native prairie and forest management, habitat manipulation, environmental compliance, and maintenance of real estate license, lease, and easements. Invasive species management to include identification, mapping, monitoring, and control by-way of both biological and mechanical means. High energy food plot plantings, fire break management and seasonal monitoring of water quality.

WS: $5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lookout Point Lake, OR

AUTHORIZATION: Flood Control Acts, 1944, P.L. 75-761, 1950, PL. 81-516

LOCATION AND DESCRIPTION: On Middle Fork Willamette River, 22 miles S.E. of Eugene, Oregon. Multi-purpose w/power; main dams, spillways, powerhouse with three generating units and a re-regulating dam (Dexter) powerhouse with one generating unit, and recreation sites. The project has an hydropower installed capacity of 135 megawatts and 456,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 768,000
CONFERENCE AMOUNT FOR FY2010: $ 2,629,000
BUDGET FOR FY2011: **M**: $ 92,000 **O:** $ 1,988,000 **T:** $ 2,080,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 12,000 - Provides the navigation component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $ 779,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $ 241,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of the hydropower plant are direct funded by the Power Marketing Agency.

ES: $1,025,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $23,000 - Provides the water supply component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lost Creek Lake, OR

AUTHORIZATION: 1962 Flood Control Act, P.L. 87-874

LOCATION AND DESCRIPTION: On upper Rogue River, 27 miles N.E. of Medford, Oregon. Multi-purpose with power; dam, spillway, powerhouse with two generating units, and recreation sites. The project has an hydropower installed capacity of 49 megawatts and 315,000 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 451,000
CONFERENCE AMOUNT FOR FY2010: $ 3,455,000
BUDGET FOR FY2011: **M**: $ 346,000 **O:** $ 3,551,000 **T:** $ 3,897,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 - N/A

FRM: $ 682,000 - Critical operations and maintenance of the flood control dam, reservoir, service facilities and permanent operating equipment. Provides the flood risk management component for the routine operations and maintenance of the joint features of the project which are non-hydropower specific.

REC: $762,000 - Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of the hydropower plant are direct funded by the Power Marketing Agency.

ES: $2,332,000 - Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and hatchery, natural resource management and ESA mandates.

WS: $ 121,000 - Provides the water supply component for the critical routine operations and maintenance of the joint features of the project which are non-hydropower specific.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lower Granite Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 33 miles west of Lewiston Idaho. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 100 feet, one fish ladder, a system of levees and pumping plants, a reservoir that has a water surface area of 8,900 acres, 5,778 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities, and adult-fish trapping facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $3,316,000
CONFERENCE AMOUNT FOR FY2010: $7,271,000
BUDGET FOR FY2011: **M**: $4,303,000 **O**: $1,569,000 **T**: $5,872,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $4,179,000 – Routine and non-routine operation and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys, compliance with court settlement agreement to allow future dredging, prevention of damage to lock that prevents dewatering. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $0 – N/A

Rec: $1,657,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and other means to accommodate visitation not accommodated in initial.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $36,000 – operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project; for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species; maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control; and for Cultural Resources and Section 106 clearances.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lower Monumental Lock and Dam, WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on the Snake River about 45 miles northeast of Pasco Washington. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 810 Megawatts, a navigation lock with a vertical lift of 98 feet, two fish ladders, a reservoir that has a water surface area of 6,590 acres, 8,336 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $14,138,000
CONFERENCE AMOUNT FOR FY2010: $2,599,000
BUDGET FOR FY2011: **M**: $3,717,000 **O**: $1,017,000 **T**: $4,734,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $3,920,000 – Routine and non-routine operations and maintenance including critical navigation lock maintenance to assure safe and reliable operations to avoid unscheduled outages due to breakdown maintenance. Funding to conduct dam safety activities and channel surveys, compliance with court settlement agreement to allow future dredging, prevention of concrete failure that can cause operation and safety hazards. Provides critical operations and maintenance the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $0 – N/A

Rec: $592,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and other means to accommodate visitation not accommodated in initial.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $222,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project; for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species; for maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control; and for Cultural Resources and Section 106 clearances.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lucky Peak Dam and Lake, ID

AUTHORIZATION: PL 79-526 (Flood Control Act of 1946)

LOCATION AND DESCRIPTION: Project is located in Southern Idaho on the Boise River, 15 minutes from Boise, Idaho. The project includes the dam, a flood control and irrigation reservoir that has a gross storage capacity of 306,000 acre-feet of water. The reservoir and 4,288 acres of land provides recreation facilities to over a million visitors annually and valuable wildlife mitigation habitat.

RECOVERY ACT ALLOCATIONS TO DATE: $169,000
CONFERENCE AMOUNT FOR FY2010: $2,468,000
BUDGET FOR FY2011: M: $1,080,000 **O**: $1,609,000 **T**: $2,689,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $1,713,000 – Funding is for routine bridge inspection, routine maintenance and instrumentation maintenance and repair, routine operations of the dam, to update the emergency notification plan, dam safety training, security guards, flood damages reports, instrumentation, and inspection and data collection. Funding identified for non-routine Dam Safety Action Classifications (DSAC) Interim Risk Reduction Measures (IRRM), sluice gate decommissioning, and machinery inspection of mechanical and electrical equipment.

Rec: $818,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and other means to accommodate visitation not accommodated in initial.

Hydro: $0 – N/A

ES: $158,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, janitorial and trash pickup contracts, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 inspections.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: McNary Lock and Dam, OR & WA

AUTHORIZATION: PL 79-14 (Section 2 of the River and Harbor Act of 1945)

LOCATION AND DESCRIPTION: Project is located in Central Oregon on the Columbia River near Umatilla Oregon. The project is part of the Federal Columbia River Power System. The project includes the dam, a powerhouse with an installed capacity of 980 Megawatts, a navigation lock with a vertical lift of 75 feet, two fish ladders, a system of levees and pumping plants, a reservoir that has a water surface area of 38,800 acres, 16,908 acres of land that provides recreation facilities and wildlife mitigation habitat, and a juvenile fish holding, loading, and bypass facilities.

RECOVERY ACT ALLOCATIONS TO DATE: $2,300,000
CONFERENCE AMOUNT FOR FY2010: $ 6,783,000
BUDGET FOR FY2011: **M**: $ 3,472,000 **O**: $ 2,805,000 **T**: $ 6,277,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $3,147,000 - Routine and non-routine operation and maintenance including critical navigation lock maintenance including funding to conduct dam safety activities and channel surveys. Provides critical operations and maintenance of the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $0 – N/A

Rec: $1,783,000 – Funding for operation and maintenance of recreational sites/facilities and programs, combination of re-opening parks and other means.

Hydro: $0 – Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of hydropower plant are direct funded by the Power Marketing Agency.

ES: $1,347,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Includes funding for juvenile fish transportation, passage research, water quality activities and biological opinions for Federally listed endangered or threatened species. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for the preservation of Kennewick Man and Section 106 clearances.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Melvern Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Osage County, Kansas, 8 miles south of Lyndon. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $2,468,000
CONFERENCE AMOUNT FOR FY2010: $2,044,000
BUDGET FOR FY2011: M: $395,000 **O**: $1,586,000 **T**: $1,981,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $917,000 - Critical routine operations and maintenance flood risk management.

Rec: $872,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $186,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Funding at this level will provide minimal boundary surveillance, a reduced prescribed burning program and a reduced lake sampling program. Funding allows our cooperative efforts with Kansas Department of Wildlife and Parks and continuation of our wetland maintenance program.

WS: $6,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Milford Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: The project is located in Geary, Clay, and Riley Counties, on the Republican River near the village of Alida, about 10 miles above the confluence of the Republican and Smokey Hill Rivers, which form the Kansas River; near Fort Riley, Kansas and about 4 miles northwest of Junction City, Kansas. This project provides flood protection, water supply, water quality control, fish and wildlife management, navigation supplementation, and recreation for northeast Kansas.

RECOVERY ACT ALLOCATIONS TO DATE: $2,482,000
CONFERENCE AMOUNT FOR FY2010: $1,955,000
BUDGET FOR FY2011: M: $810,000 **O**: $1,581,000 **T**: $2,391,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $1,273,000 - Critical routine operations and maintenance flood risk management.

Rec: $1,011,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $102,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mill Creek Lake, WA

AUTHORIZATION: PL 75-761 (Flood Control Act of 1938)

LOCATION AND DESCRIPTION: Project is located in Eastern Washington on Mill Creek near Walla Walla Washington. The project includes the dam, a reservoir that has a gross storage capacity of 8,300 acre-feet of water, a flood control channel, 612 acres of land that provides recreation facilities and wildlife mitigation habitat, and a diversion dam and levee with two fish ladders.

RECOVERY ACT ALLOCATIONS TO DATE: $110,000
CONFERENCE AMOUNT FOR FY2010: $3,644,000
BUDGET FOR FY2011: M: $2,033,000 **O**: $1,784,000 **T**: $3,817,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $3,025,000 – Funding is for routine bridge Inspection, routine maintenance and instrumentation maintenance and repair, routine operations of the dam, to update emergency notification plan, dam safety training, security guards, flood damages reports, instrumentation, inspection and data collection. Funding for several non-routine items such as rip rap rehabilitation downstream of intake canal, Dam Safety Action Classification (DSAC) activities, arm gate anchor, dam outlet conduit deficiencies, and additional maintenance requirements for levee culvert replacement, radial gate painting, and diversion dam concrete decks.

Rec: $468,000 – Funding for operation and maintenance of recreational sites/facilities and programs, and other means to accommodate visitation not accommodated in initial.

Hydro: $0 – N/A

ES: $324,000 – Funding for operation and maintenance of lands and wildlife mitigation areas designed to protect, restore and conserve natural resources within project. Funding to implement National Marine Fisheries Service Biological Opinion for listed threatened Mid-Columbia River steelhead and U.S. Fish and Wildlife Service biological opinion for listed threatened bull trout. Includes funding for coordination of project activities with region and implementation of required fish passage improvements. Additionally, funding includes provisions for the maintenance and repair of irrigation systems, fences, habitat facilities, annual and perennial plantings of tree and shrub areas, food plots, meadows, and noxious and invasive species control. Includes funding required for cultural resources mandates and Section 106 inspections.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Missouri River - Kenslers Bend, NE to Sioux City, IA

AUTHORIZATION: PL 79-14.

LOCATION AND DESCRIPTION: Missouri River Kenslers Bend Project provides operation and maintenance on 15 miles of the Missouri River navigation channel from Big Sioux Bend near Sioux City IA to Ponca Bend near Ponca, Nebraska. Program responsibilities include maintenance of dikes revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes, chute closures, dredging, water control and water quality studies.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $123,000
BUDGET FOR FY2011: **M**: $87,000 **O**: $50,000 **T**: $137,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $137,000 - The funding will provide the operations and maintenace requirements of the Navigation mission. Program responsibilities include maintenance of structures; dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes and chute closures. Funding will provide maintenance to critically damaged or degraded structures, structure surveys, dredging, water control and water quality studies necessary to maintain a reliable, navigable river channel and to protect the project as a unit.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Missouri River, Rulo to Mouth, IA, NE, KS & MO

AUTHORIZATION: Flood Control Acts of 1912 (P.L. 62-241), 1917 (P.L. 64-), 1925 (P.L. 68-585), 1927 (P.L. 70-560), 1930 (P.L. 73-67), 1935 (P.L. 73-409), 1945 (P.L. 79-14), 1970 (P.L. 91-611)

LOCATION AND DESCRIPTION: The Missouri River project was designed to be a self-scouring channel that uses the controlled erosive forces of flowing water to maintain channel widths and depths. Dike and revetment structures must be maintained in design condition to achieve the desired flow patterns and channel dimensions necessary for commercial navigation.

RECOVERY ACT ALLOCATIONS TO DATE: $ 3,440,000
CONFERENCE AMOUNT FOR FY2010: $6,500,000
BUDGET FOR FY2011: **M**: $4,678,000 **O**: $1,765,000 **T**: $6,443,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $6,043,000 – Critical routine operations and maintenance. Also, remaining critical routine operations supporting river field office, plant, staff, and work including dike and revetment repair, ESA compliance and emergency dredging. Remaining critical routine maintenance includes structural improvements of low-flow navigation problem areas and repair of damaged dikes for bank stabilization and navigation.

FRM: $0 – NA.

Rec: $0 – NA.

Hydro: $0 – NA.

ES: $400,000 - Operation and maintenance of Missouri River Fish and Wildlife mitigation sites by the States of Missouri, Kansas, and the US Fish and Wildlife Service. Work includes maintenance of habitat plantings and mitigation water control structures, control of noxious species, installation of annual wildlife food plots, protection of endangered species, and management of public use including signing and patrols to protect mitigation site habitats.

WS: $0 – NA.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Missouri River - Sioux City to Rulo, IA, NE, KS & MO

AUTHORIZATION: PL 71-520; PL 73-67; PL 74-409, PL 79-14.

LOCATION AND DESCRIPTION: Missouri River, Sioux City to Rulo Project provides operation and maintenance on 234 miles of the Missouri River navigation channel from Sioux City, IA (River mile 732.2) to Rulo, Nebraska (River mile 498.1).

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $2,480,000
BUDGET FOR FY2011: **M**: $985,000 **O**: $1,593,000 **T**: $2,578,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,721,000 – Funds will provide operations and maintenance requirements of the Navigation mission which includes maintenance of over 2000 river structures; dikes, revetments, environmental notches, chevron dikes, L-dikes, sills, kicker dikes and chute closures. Funding will provide maintenance to critically damaged or degraded structures, structure surveys, dredging, water control and water quality studies necessary to maintain a reliable, navigable river channel and to protect the project as a unit.

FRM: $0 – N/A

Rec: $12,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public and will provide for the real estate management needs of the project.

Hydro: $0 – N/A

ES: $845,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: Due to the physical nature of the navigation channel on the Missouri River, it is necessary to perform maintenance and repairs on flow control structures. These structures are necessary to maintain the channel as a self-scouring channel and to avoid the expense of annual dredging projects. The Missouri River Project places approximately 30,000 tons of riprap annually on the structures of the Missouri River.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mt. St Helens Sediment Control Structure, WA

AUTHORIZATION: Supplemental Appropriation Act 1985, P.L. 99-88

LOCATION AND DESCRIPTION: On the North Fork Toutle River and on the Cowlitz River in Cowlitz County, Washington; flood reduction, sediment retention structure on the North Fork Toutle River.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 265,000
BUDGET FOR FY2011: **M:** $ 37,000 **O:** $ 228,000 **T:** $ 265,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 - N/A

FRM: $ 265,000 - Critical level of effort for required minimum annual day to day activities to ensure project meets authorized purpose. Includes required dam safety inspections.

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mud Mountain Dam, WA

AUTHORIZATION: Section 5 of the Flood Control Act of 1936, dated 22 June 1936 for flood control and fish collection.

LOCATION AND DESCRIPTION: The project is located on the White River, six miles upriver and southeast of Enumclaw and 38 miles east of Tacoma. Facility provides flood protection within the White River watershed. When the original flood control project was built in 1948, a fish passage trap facility was constructed six miles downstream of the dam. The facility is still used to capture salmonids for trucking above the dam where they are released.

RECOVERY ACT ALLOCATIONS TO DATE: $804,000
CONFERENCE FOR FY 2010: $2,904,000
BUDGET FOR FY 2011: **M**: $931,000 **O**: $2,510,000 **T**: $3,441,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $2,336,000, Operations and Maintenance activities as budget allows. Continue to monitor and support the construction general projects. Continue to support the fish passage facility and to continue the record fish hauls.

Rec: $333,000 Continue to operate and maintain the public park, trails and over look areas in a safe manner.

Hydro: $0 – N/A

ES: $772,000 Continue efforts with implementation of the Reasonable and Prudent Measures in the Biological Opinion.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Neah Bay, WA

AUTHORIZATION: Breakwater and Revetment - River and Harbor Act of June 20, 1938. Marina Breakwater – Section 107, Public Law 86-645.

LOCATION AND DESCRIPTION: Neah Bay is located at the most northwest tip of Washington at the entrance to the Strait of Juan de Fuca and offshore of the Makah Tribal Reservation, about 5 miles east of Cape Flattery and the Pacific Ocean. The project provides an outer breakwater, marina breakwater and revetment. The outer breakwater provides a sheltered harbor, with shore protection revetment at the harbor entrance, a navigation channel and marina breakwater to provide access and protection to the Makah 22-acre commercial marina. The outer rubblemound breakwater extends west from Waada Island approximately 8,000 feet. The rock revetment is 3,000 feet long at Baada Point and protects U. S. Coast Guard facilities. The marina rubble mound breakwater is 1,900 ft. long and the marina access channel is 15 ft deep. The marina breakwater includes a fish gap and maintenance of a beach sand blanket to the east.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $67,000
BUDGET FOR FY 2011: M: $0 **O**: $50,000 **T**: $50,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $50,000 – funding provides for routine operations project condition survey and inspection of the outer breakwater and inner breakwater marina fish gap. Outer breakwater repairs should be finished in 2010 so a new inspection after the 2010 winter storms will allow further design efforts for future repairs to be more effective.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Oahe Dam, Lake Oahe, SD & ND

AUTHORIZATION: PL 78-534, PL 93-205.

LOCATION AND DESCRIPTION: The project is located 7 miles north of Pierre, South Dakota, on South Dakota Highway 1804; or 5 miles north of Fort Pierre, South Dakota on South Dakota Highway 1806. Construction on Oahe Dam began in 1948 and the project began generating electricity in 1962. The dam measures 9,300 feet in length and has a maximum height of 245 feet and creates Lake Oahe, which spreads 231 miles upstream. The water in Lake Oahe is stored for flood damage reduction, power generation, navigation, fish and wildlife, recreation, irrigation, water supply, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $5,013,000
CONFERENCE AMOUNT FOR FY2010: $11,229,000
BUDGET FOR FY2011: **M**: $2,138,000 **O**: $8,339,000 **T**: $10,477,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,108,000 - Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

FRM: $1,519,000 - Provides the flood risk management component for the operations and maintenance of the joint features of the project which are non-hydropower specific.

Rec: $506,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $5,740,000 - Provides for the operation and maintenance of the hydroelectric power plant, power transmission facilities and associated water control structures; and the hydropower component of joint activities including dam safety monitoring, studies and inspections, reservoir scheduling and real estate management. Major non-routine work includes surveys for periodic inspection, safety repairs to spillway monorail crane and replacement of the emergency spillway power line.

ES: $1,604,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Papillion Creek and Tributaries Lakes, NE

AUTHORIZATION: PL 90-483, PL 89-72.

LOCATION AND DESCRIPTION: The Papillion Creek Projects consist of Glenn Cunningham, Standing Bear, Zorinsky and Wehrspann Lakes and Dams, all of which are located within the Greater Omaha area. The Corps of Engineers built the dams and developed the initial recreation plan as part of the Papillion Creek and Tributaries lakes project. Extensive flooding in 1964 and 1965 resulted in the loss of 7 lives and $5.5M in property damage, prompting Congress to authorize construction of the Papillion dams. The dams and reservoirs were built primarily to reduce flood damage in the Papillion Creek watershed. Recreational opportunities, wildlife habitat and improved water quality are additional benefits derived from the Papillion Project. The Corps cooperates with other agencies to manage and protect the natural resources of these lakes and surrounding lands.

RECOVERY ACT ALLOCATIONS TO DATE: $232,000
CONFERENCE AMOUNT FOR FY2010: $805,000
BUDGET FOR FY2011: M: $80,000 **O**: $658,000 **T**: $738,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $652,000 – Funding will be used to meet the operations and maintenance requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: $34,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $52,000 - Funding will be used to meet the O&M requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Perry Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 81-780)

LOCATION AND DESCRIPTION: The project is located on the Delaware River, 2 miles north of Perry, in Jefferson County, Kansas. This project provides flood protection, water supply, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $2,533,000
CONFERENCE AMOUNT FOR FY2010: $1,915,000
BUDGET FOR FY2011: M: $692,000 **O**: $1,562,000 **T**: $2,254,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $940,000 - Critical routine operations and maintenance flood risk management, as well as relief well rejuvenation.

Rec: $1,113,000 - Rock Creek Park: Removal of 100,000 gallon water tower. This tower is no longer in use for various maintenance issues, the primary being high lead content of the paint. This structure poses a significant threat to health and welfare with the levels of lead in the paint. The structure will continue to degrade and will become a structural hazard posing public safety concerns in the very near future. Water line to Perry Marina: Currently one meter serves both Perry Marina and the Corps of Engineers from the rural water district. The Marina pays the water fees to the Corps and in turn the Corps pays the rural water district, because the meter is owned by the Corps. With this arrangement the Marina is not paying taxes on the water it uses, because their usage is combined with the Corps through the one meter. Slough Creek water line improvements: The current water line runs under Perry Lake and will need major repairs in the near future, which will require significant budget dollars to repair or replace. If the current water line under the lake were to break or develop significant leaks, water would not be available for Slough Creek Park resulting in the park closure.

Hydro: $0 – NA.

ES: $196,000 - Provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Investigations include project review, field investigations, and coordination with various state historical societies. Also, maintain and improve prairie grass stands, improve wildlife carrying potential, control erosion through maintenance of residues and the maintenance of terraces, and enhance wildlife carrying potential by providing wildlife food plots.

WS: $5,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pipestem Dam & Lake, ND

AUTHORIZATION: PL 89-298, PL 89-72.

LOCATION AND DESCRIPTION: Located 4 miles north of Jamestown, North Dakota, off highway 52/281. Pipestem Dam was constructed for flood damage reduction, fish and wildlife enhancement, and recreation. Construction of the dam began in June 1971, and was completed in 1973. The dam measures approximately 4,000 feet in length, with a maximum height of 107.5 feet from the stream bed to the top of the dam. Pipestem Lake is 5.5 miles long and has a maximum depth of 30 feet. The lake drains an approximate 594 square mile area, and has a multipurpose storage capacity of 8,944 acre-feet.

RECOVERY ACT ALLOCATIONS TO DATE: $1,046,000
CONFERENCE AMOUNT FOR FY2010: $471,000
BUDGET FOR FY2011: **M**: $65,000 **O**: $485,000 **T**: $550,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $397,000 - Funding will be used to meet the operation and maintenance requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: $25,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $128,000 - Funding will be used to meet the operations and maintenance requirements of the Environmental Stewardship mission. In an effort to manage and conserve natural resources, consistent with ecosystem management principles, specific routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pomme de Terre Lake, MO

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1944 (P.L. 78-534), 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Hickory and Polk counties, 4 miles south of Hermitage and 20miles north of Bolivar, Missouri. This project provides flood protection, water quality, and recreation to southwest Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $7,379,000
CONFERENCE AMOUNT FOR FY2010: $2,120,000
BUDGET FOR FY2011: **M**: $649,000 **O**: $1,507,000 **T**: $2,156,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $842,000 - Critical routine operations and maintenance flood risk management and bridge inspections.

Rec: $981,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $333,000 - Provides for basic stewardship of cultural resources and compliance with Sections 106 and 110 of the National Historic Preservation Act, to include project review, field investigations, and coordination with various state historical societies. Also includes tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $0 – NA.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pomona Lake, KS

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: The project is located in Osage County, Kansas, approximately 8 miles northwest of Pomona and 34 miles upstream from Ottawa. This project provides flood protection, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $2,479,000
CONFERENCE AMOUNT FOR FY2010: $1,945,000
BUDGET FOR FY2011: M: $606,000 **O**: $1,359,000 **T**: $1,965,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $915,000 - Critical routine operations and maintenance for flood risk management.

Rec: $841,000 - Activiies required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $206,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $4,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Puget Sound and Tributary Waters, WA

AUTHORIZATION: The Rivers and Harbor Act of 1892.

LOCATION AND DESCRIPTION: The Puget Sound and its Tributary Waters in Washington State. Removal of all hazards to navigation in the Federal Navigation Channel waters.

RECOVERY ACT ALLOCATIONS TO DATE: $588,000
CONFERENCE FOR FY 2010: **T**: $961,000
BUDGET FOR FY 2011: **M**: $905,000 **O**: $0 **T**: $905,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $905,000 – Funding provides for routine operations and maintenance for debris vessel PUGET, with-in Puget Sound Waters. This includes the removal of all hazards to navigation in the Federal Navigation Channel waters of Puget Sound and disposal of the collected debris, thus preventing collision hazards for industry and public users. When collected debris is disposed of, good wood is recycled for a cost savings to the Government or given to Government agencies for restoration work.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Quillayute River, Washington

AUTHORIZATION: River and Harbor Act of 3 July 1930.

LOCATION AND DESCRIPTION: The project is located on Washington's Pacific coast at the mouth of the Quillayute River at La Push. It lies within the Quileute Tribal Reservation which is bounded by the Olympic National Park. The project consists of a channel 10-ft deep and 75 to 100-ft wide running from deep water to the Quileute Tribe marina. The marina is protected by a timber-training wall and provides moorage for the US Coast Guard. The entrance is protected by two federal structures – a jetty on the south and a dike on the north. The dike runs between a natural spit and James Island. There is a federal responsibility to protect the spit, which has been armored.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: T: $253,000
BUDGET FOR FY 2011: M: $ 0 **O**: $1,590,000 **T**: $1,590,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $1,590,000 – Funding provides for routine operations of the project.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rathbun Lake, IA

AUTHORIZATION: Flood Control Act of 1954, P.L. 83-780.

LOCATION AND DESCRIPTION: The project is located on the Chariton River, near Centerville, IA, and is located in Wayne, Lucas, Monroe and Appanoose Counties. Regional Benefits include: Flood damage reduction on the Chariton, Missouri and Mississippi Rivers; recreation; fish and wildlife management; downstream water quality improvement; and water supply for one of the largest rural water systems in the country, the Rathbun Regional Water Association (RRWA).

RECOVERY ACT ALLOCATIONS TO DATE: $4,746,000
CONFERENCE AMOUNT FOR FY2010: $2,869,000
BUDGET FOR FY2011: M: $324,000 **O**: $2,177,000 **T**: $2,501,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $1,265,000 - Critical routine operations and maintenance for flood risk management, dewatering, and relief well rejuvenation.

Rec: $1,061,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $168,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Rogue River at Gold Beach, OR

AUTHORIZATION: River and Harbor Act of: 3 Sep1954 and P.L. 83-780

LOCATION AND DESCRIPTION: The project is located on the Oregon coast, 264 miles south of the entrance to the Columbia River. The project includes a north (3,300-feet long) and south (3,400-feet long) jetty system with channel entrance 650-feet long, 300-feet wide, to turning basin 500-feet wide with a depth of 13 feet. The Gold Beach Boat Basin has channel 2,100-feet long, 100-feet wide leading to turning basin 600-feet long, 150-feet wide and a depth of 10 feet.

RECOVERY ACT ALLOCATIONS TO DATE: $ 120,000
CONFERENCE AMOUNT FOR FY2010: $ 736,000
BUDGET FOR FY2011: **M**: $ 530,000 **O:** $ 49,000 **T:** $ 579,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 579,000 - Critical minimum dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 - N/A

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Salt Creek and Tributaries, NE

AUTHORIZATION: PL 78-534, PL 85-500.

LOCATION AND DESCRIPTION: The Salt Creek and Tributaries Flood Control Project in Nebraska was authorized by the Federal Flood Control Act of 1958 to provide flood damage reduction, water quality, recreation, and fish and wildlife enhancement. The basin drains a 1645 square mile area of southeastern Nebraska, encompassing the City of Lincoln. Salt Creek enters the Platte River from the right bank 25 miles southwest of Omaha and drains the southern and western part of the basin, while Wahoo Creek drains the northeastern portion. The ten Salt Creek Lakes furnish much needed recreation for local residents as well as providing vital habitat for wildlife. These projects cover 11,239 acres, of which 4,289 are surface acres of water. The Corps of Engineers leases all but one of its Salt Creek Reservoirs to the State of Nebraska Game and Parks Commission (NGPC). The NGPC refers to these projects as the Salt Valley Lakes. Holmes Lake is leased to the City of Lincoln, Nebraska.

RECOVERY ACT ALLOCATIONS TO DATE: $390,000
CONFERENCE AMOUNT FOR FY2010: $1,025,000
BUDGET FOR FY2011: M: $228,000 **O**: $839,000 **T**: $1,067,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – N/A

FRM: $1,003,000 - Funding will be used to meet the operation and maintenance requirements of the Flood Risk Management mission. Activities include performing routine critical operations and maintenance required to operate the project, necessary engineering, oversight, inspection and monitoring to assure continued safe operation of the project.

Rec: $30,000 - Funding will allow the Corps to provide quality outdoor recreation experiences for the public. Routine activities will include recreation management, interpretive services, public outreach, visitor assistance program implementation, Title 36 enforcement, reservation services support, recreation use fee management, and completion of updates to required Master and/or management plans.

Hydro: $0 – N/A

ES: $34,000 - Funding will be used to meet the operation and maintenance requirements of the Environmental Stewardship mission. Routine and non-routine activities for this year will include natural resource inventories, special status species monitoring, invasive species control (both pest and noxious weed), implementation of mitigation requirements, enhancement actions, shoreline management activities, real estate use evaluations and Master and/or management plan updates.

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Seattle Harbor, WA

AUTHORIZATION: The Rivers and Harbors Act of March 2, 1919

LOCATION AND DESCRIPTION: Seattle Harbor is located on the east side of central Puget Sound in Washington State. The project is located on the lower Duwamish River from Elliott Bay upstream approximately five miles along the river to the head of the federal navigation channel. The project consists of the East Waterway, 34 to 51 feet deep; the West Waterway, 34 feet deep; Duwamish Waterway, 30 feet deep for 2.6 miles, 20 feet deep for 0.8 miles, and 15 feet deep for 1.8 miles to the head of navigation.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $163,000
BUDGET FOR FY 2011: M: $840,000 **O**: $111,000 **T**: $951,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $951,000 – Funding provides for routine operations and maintenance for navigation in the Duwamish Waterway; These funds will fund dredging for navigation and commerce which will remove some the shoaling in the Upper Turning Basin and re-establish authorized depths this upper portion of the waterway. The Turning Basin dredging also provides a large sediment settling basin to minimize effects of additional water releases and resultant bed loading due to the Howard Hanson Dam issues. Dredging removes the bulk of the yearly sediment loading of the entire river and maintains navigational channels throughout this Superfund site. Operations funds will be used for survey of the entire waterway and environmental coordination for future dredging actions.

FRM: $0 – N/A

Rec $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Siuslaw River, OR

AUTHORIZATION: The Rivers and Harbors Act of 1890, as amended, and Section 107 Continuing Authority, 1890 (build jetties), 1925 (12' channel), 1958 (deepen to 16')

LOCATION AND DESCRIPTION: The project is located at the Siuslaw River, Oregon, approximately 130 miles south of the Columbia River. The project provides for navigation access to the Siuslaw River and consists of two high-tides, rubble-mound jetties 750 feet apart at the outer end: the north jetty 8,390 feet long, and the south jetty 4,200 feet long. The project also includes: an entrance channel 18 feet deep and 300 feet wide from the deep water in the ocean to a point 1,500 feet inside the outer end of the existing north jetty; a channel 16 feet deep, 200 feet wide with additional widening at bends, and about 5 miles long, to a turning basin which is 16 feet deep, 400 feet wide, and 600 feet long, opposite the Siuslaw dock at Florence; a channel 12 feet deep, 150 feet wide from Florence to mile 16.5; a turning basin 12 feet deep, 300 feet wide, and 500 feet long at RM 15.5.

RECOVERY ACT ALLOCATIONS TO DATE: $ 2,156,500
CONFERENCE AMOUNT FOR FY2010: $ 647,000
BUDGET FOR FY2011: **M**: $ 621,000 **O:** $ 87,000 **T:** $ 708,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 708,000 - Critical minimum dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 - N/A

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Smithville Lake, MO

AUTHORIZATION: Flood Control Act of 1965 (P.L. 89-298)

LOCATION AND DESCRIPTION: Smithville Lake is about 1 mile northeast of Smithville and about 5 miles north of Kansas City, in Clay and Clinton counties, Missouri. The project provides flood protection, water supply, water quality, and recreation to the surrounding area, and greater metropolitan Kansas City, Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $3,029,000
CONFERENCE AMOUNT FOR FY2010: $1,758,000
BUDGET FOR FY2011: **M**: $295,000 **O**: $865,000 **T**: $1,160,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $773,000 - Critical routine operations and maintenance for flood risk management and relief well rejuvenation.

Rec: $136,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $247,000 - Provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Investigations include project review, field investigations, and coordination with various state historical societies. Provide basic stewardship of soil, water, vegetative and wildlife resources on project lands. Monitor soil erosion on lake shore and 40 agricultural leases and implement improvements as necessary by placing rip rap on disturbed areas and planting native grass strips in erosion reduction zones. Mow, spray, edge feather, disk, and plant food plots on 15 quail management areas and public hunting areas. Remove invasive species from administrative and public hunting grounds including lespedeza, multi-flora rose, honey locust, and Russian olives.

WS: $4,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stillaguamish River, WA

AUTHORIZATION: Sec 5 of the Flood Control Act of 1936 (Public No. 738) dated 22 June 1936.

LOCATION AND DESCRIPTION: The project is located downstream of Arlington in Snohomish county, in northwestern Washington state. The project provides for works to reduce bank erosion and channel changes on the Stillaguamish River between Arlington and the head of Hat Slough, a distance of 15 miles, and on Cook Slough, 3 miles long, as follows: Revetments at 26 places on the river and Cook Slough; a concrete control weir 275 feet long between steel-sheet pile piers at the head of Cook Slough to limit flow through the slough; and two cut-off channels, each about 900 feet long, to eliminate sharp bends of Cook Slough

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $157,000
BUDGET FOR FY 2011: M: $ 0 **O**: $265,000 **T**: $265,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $265,000 - Budgeted funds will be used to continue brushing bank revetments, and normal maintenance and repair of bank erosion from winter flows. Brushing will occur in the March/April timeframe.

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stockton Lake, MO

AUTHORIZATION: Flood Control Act of 1954 (Public Law 83-780)

LOCATION AND DESCRIPTION: Stockton Lake is located in Cedar, Dade, and Polk counties, approximately 1 mile east of Stockton, Missouri. This project provides flood protection, hydropower, water supply, fish and wildlife, and recreation to southwest Missouri.

RECOVERY ACT ALLOCATIONS TO DATE: $37,387,000
CONFERENCE AMOUNT FOR FY2010: $4,153,000
BUDGET FOR FY2011: **M**: $1,857,000 **O**: $2,296,000 **T**: $4,153,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $766,000 - Critical routine operating costs necessary to meet minimum operating requirements of the power plant, and generation and transmission equipment. Also, critical remaining routine program joint maintenance and repair costs (i.e. vegetation removal, dam safety inspections, instrumentation, etc.) necessary for the safe operation of the dam, and joint operating costs necessary for water management (water control & quality) activities.

Rec: $1,650,000 - Activities required to open parks to accommodate visitation.

Hydro: $1,491,000 - Essential operating costs necessary to meet minimum operating requirements of the power plant. Funds critical routine operations of generation and transmission equipment. The power plant plays a critical part in producing power for customers within the Southwestern Power Administrations region. Failure to fund this item will result in lost power production, lost revenue for the US Treasury, and customers having to purchase replacement power at higher rates.

ES: $239,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests.

WS: $7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Swinomish Channel, WA

AUTHORIZATION: The Rivers and Harbor Act of July 13, 1892, modified by subsequent acts.

LOCATION AND DESCRIPTION: Swinomish Channel is a shallow draft project in northern Puget Sound. The project is eleven miles long, 100 feet wide and 12 feet deep providing a protected channel from south Puget Sound to the San Juan Islands.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $ 0
BUDGET FOR FY 2011: M: $ 0 **O**: $62,000 T: $62,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $62,000 – funding provides for routine project condition surveys to apprise users of channel conditions.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tacoma-Puyallup River, WA

AUTHORIZATION: Sec 5 of the Flood Control Act of 1936 (Public No. 738) dated 22 June 1936.

LOCATION AND DESCRIPTION: The project is located on the Puyallup River near Tacoma, Washington. It provides for a channel with a capacity of 50,000 cubic feet per second between the East 11th Street bridge and the lower end of the inner-county improvement, a distance of about 2.2 miles, by straightening the channel, building levees, (revetting the channel and levees), and making all necessary bridge changes. The Flood Control Act of 28 June 1938 provides for Federal maintenance of the project. The improvement was planned in conjunction with Mud Mountain Dam, and affords protection against floods about 50 percent greater than the maximum discharge of record.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: T: $124,000
BUDGET FOR FY 2011: M: $0 **O**: $142,000 **T**: $142,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 - N/A

FRM: $142,000 - The funds will be used to brush excessive vegetation from levee tops and side slopes, grading of levee top, pickup garbage, and control noxious weeds and to manage and coordinate project modifications and real estate actions.

Rec: $0 - N/A

Hydro: $0 - N/A

ES: $0 - N/A

WS: $0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: The Dalles Lock and Dam, WA and OR

AUTHORIZATION: 1950 Flood Control Act, P.L. 81-516

LOCATION AND DESCRIPTION: The Columbia River, 90 miles east of Portland, Oregon. Multi-purpose with power; consisting of a dam, spillways and fish passage; navigation lock, powerhouse with twenty-four generation units and recreation sites. The project has an hydropower installed capacity of 1,780 megawatts and a five-year average annual commercial lockage of 9.1 million tons.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,532,300
CONFERENCE AMOUNT FOR FY2010: $ 8,333,000
BUDGET FOR FY2011: **M**: $ 6,320,000 **O:** $ 2,382,000 **T:** $ 8,702,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $7,181,000 - Critical routine navigation lock operations and maintenance including periodic navlock inspections. Provides the navigation component for the operations and maintenance of the joint features of the project which are non-hydropower specific. Also includes the navigation lock downstream gate replacement and installation during scheduled extended outage.

FRM: $ 0 - N/A

REC: $629,000 -Critical routine operation and maintenance of recreational activities and management of all recreational lands and facilities.

Hydro: $ 0 - Critical routine operation and maintenance of joint dam, reservoir, service facilities and permanent operating equipment. The joint hydropower component and routine operation and maintenance of the hydropower plant are direct funded by the Power Marketing Agency.

ES: $892,000 -Critical routine operation and maintenance to meet mitigation requirements for fish passage facilities and natural resource management and ESA mandates.

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tuttle Creek Lake, KS

AUTHORIZATION: Flood Control Acts of 1938 (P.L. 75-761), 1941 (P.L. 77-228), 1944 (P.L. 78-645), WRDA 1986 (P.L. 99-662)

LOCATION AND DESCRIPTION: The project is located at mile 10 on the Big Blue River, 6 miles north of Manhattan in Riley County, Kansas. The project provides flood protection, low-flow supplementation to the Kansas and Big Blue Rivers, navigation supplementation on the Missouri River, water quality, and recreation to the State of Kansas and the region.

RECOVERY ACT ALLOCATIONS TO DATE: $3,881,000
CONFERENCE AMOUNT FOR FY2010: $1,960,000
BUDGET FOR FY2011: **M**: $749,000 **O**: $1,895,000 **T**: $2,644,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $0 – NA.

FRM: $1,843,000 - Critical routine operations and maintenance for flood risk management and bridge inspection.

Rec: $601,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $193,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and monitoring of bald eagle nests. The Biological Opinion (BiOp) for the Missouri River mainstem master manual recognizes that regulation of flows from the Kansas River for flood control and navigation has adverse impacts on Least tern and piping plover nesting on the Kansas River. This work provides for the monitoring and evaluation of nesting activities and fulfills requirements of the current BiOp.

WS: $7,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Umpqua River, OR

AUTHORIZATION: Rivers and Harbor Act of: 22 Sep 1922, (construct N. jetty), 1935 (S. jetty and 26'channel) P.L. 75-685

LOCATION AND DESCRIPTION: Umpqua is located on the Oregon Coast about 125 miles south of the Columbia River at Reedsport, Douglas County, Oregon. The existing project includes: Two stone jetties, 26 foot entrance channel, 22 foot deep river channel for 12 miles, and boat basin channel into Winchester Bay.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 1,116,000
BUDGET FOR FY2011: **M**: $ 714,000 **O:** $ 86,000 **T:** $ 800,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 800,000 - Critical dredging needed for safe transit of commercial and recreational vessels. Coast Guard Station.

FRM: $ 0 - N/A

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willamette River at Willamette Falls, OR

AUTHORIZATION: River and Harbor Act of 1910 (P.L. 61-264)

LOCATION AND DESCRIPTION: Willamette Falls Locks is a multiple-lift navigation lock located on the Willamette River in West Linn, Oregon. The lock is 131 years old and has been operated and maintained by the Corps since 1913.

RECOVERY ACT ALLOCATIONS TO DATE: $ 2,112,300
CONFERENCE AMOUNT FOR FY2010: $ 918,000

BUDGET FOR FY2011: **M:** $ 0 **O:** $ 92,000 **T:** $ 92,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 92,000 - Critical operation for caretaker status activities.

FRM: $ 0 - N/A

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willamette River Bank Protection, OR

AUTHORIZATION: Flood Control Acts; 1936 (bank protection and channel clearing), 1938 PL. 75-685 (added flood protection), 1950 PL. 81-519 (added 77 locations)

LOCATION AND DESCRIPTION: Approximately 90 miles of bank protection, drift embankments, drift barriers and channel improvements at 223 locations along the Willamette River and its tributaries from about River Mile 25 to River Mile 225 on the Willamette River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: $ 345,000
CONFERENCE AMOUNT FOR FY2010: $ 41,000
BUDGET FOR FY2011: **M**: $ 0 **O:** $ 85,000 **T:** $ 85,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 - N/A

FRM: $ 85,000 – Funds the Project's annual levee inspections. Includes labor, travel and contract costs to inspect 134 sites by helicopter, develop reports and letters for public sponsors. Inspections are done in conjunction with bank protection at other Corps projects.

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 0 - N/A

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willapa River & Harbor, WA

AUTHORIZATION: The Rivers and Harbors Act of 1916 and later Acts in 1935, 1945 and 1954.

LOCATION AND DESCRIPTION: Willapa Bay is a large tidal estuary about 30 miles north of the mouth of the Columbia River and 14 miles south of Grays Harbor on the southwest Washington coast, Pacific County, Washington. Existing navigation project features include the Toke Point Marina, Bay Center Entrance and Marina, Nahcotta Marina and Willapa River Channel. All project features are sponsored by the Port of Willapa Harbor except for the Nahcotta Marina, which is sponsored by the Port of Peninsula.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $40,000
BUDGET FOR FY 2011: **M**: $0 **O**: $30,000 **T**: $30,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $30,000 – Funding provides for routine project condition surveys to apprise users of channel conditions.

FRM: $0 – N/A

Rec: $0 – N/A

Hydro: $0 – N/A

ES: $0 – N/A

WS: $0 – N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Willow Creek Lake, OR

AUTHORIZATION: 1965 Flood Control Act, P.L. 89-298

LOCATION AND DESCRIPTION: On Willow Creek at Heppner, Oregon; flood reduction, roller compacted concrete dam, ancillary features include center uncontrolled spillway, minor flow works and diversion works, outlet works and reservoir. The project has 13,250 acre-feet of usable flood control storage.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 598,000
BUDGET FOR FY2011: **M**: $ 99,000 **O:** $ 558,000 **T:** $ 657,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 0 - N/A

FRM: $ 646,000 - Critical operation and maintenance of flood control dam, reservoir, service facilities, and permanent operating equipment.

REC: $ 0 - N/A

Hydro: $ 0 - N/A

ES: $ 11,000 - Critical routine operation to meet minimum requirements for ESA, mitigation and state law requirements for Oregon.

WS: $ 0 - N/A

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wilson Lake, KS

AUTHORIZATION: Flood Control Act of 1944 (Public Law 78-534)

LOCATION AND DESCRIPTION: Wilson Lake is located near Russell, in Russell County, Kansas. A small arm of the lake extends into Lincoln County. The Corps of Engineers lake project purposes include flood protection, recreation, navigation (until irrigation is developed), irrigation (when developed), fish and wildlife, and water quality.

RECOVERY ACT ALLOCATIONS TO DATE: $5,005,000
CONFERENCE AMOUNT FOR FY2010: $1,772,000
BUDGET FOR FY2011: **M**: $360,000 **O**: $1,055,000 **T**: $1,415,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY2011:

N: $0 – NA.

FRM: $661,000 - Critical routine operations and maintenance for flood risk management.

Rec: $631,000 - Activities required to open parks to accommodate visitation.

Hydro: $0 – NA.

ES: $115,000 - This is the minimum amount necessary to accomplish essential and critical cultural resource work efforts, which provides for basic stewardship of cultural resources at lake projects and compliance with Sections 106 and 110 of the National Historic Preservation Act. Also included is tree cutting/pruning, seeding, erosion control projects, gate installation and maintenance, controlled burns, detection and control of invasive species, lake wide water sampling, and bald eagle monitoring of eagle nests. Base effort for the prevention of the direct, immediate degradation of loss of natural resources. Increased effort to return project prairie lands to a sustainable condition through the implementation of prescribed fire and invasive species management.

WS: $8,000 - Critical routine operations performed under the Water Supply Agreement.

OTHER INFORMATION: N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Yaquina Bay and Harbor, OR

AUTHORIZATION: Rivers and Harbor Act of: 14 Jun 1880, 2 Mar 1919 (construct jetties), 1945 (26' channel), 1946 (construct boat basin), 1958 (deepen 40 entrance, 30' river channel) 1960 (boat basin S. shore) P.L. 86-645.

LOCATION AND DESCRIPTION: On the Oregon Coast about 110 miles south of the Columbia River. Deep draft project with two stone jetties; small boat access channel and South Beach Marina.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE AMOUNT FOR FY2010: $ 1,701,000
BUDGET FOR FY2011: **M**: $ 1,706,000 **O:** $ 80,000 **T:** $ 1,786,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $ 1,786,000 -Critical minimum dredging needed for safe transit of commercial and recreational vessels.

FRM: $ 0 -N/A

REC: $ 0 -N/A

Hydro: $ 0 -N/A

ES: $ 0 -N/A

WS: $ 0 -N/A

OTHER INFORMATION: N/A

PACIFIC OCEAN DIVISION

PACIFIC OCEAN DIVISION
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: Pacific Ocean

Study	Total Estimated Federal Cost	Allocation Prior to FY 2008	Tentative Allocation FY 2008	Alloc ation FY 2009	Alloc ation FY 2010	Alloc ation FY 2011	Additional to Complete After FY 2011
Yakutat, Flood and Coastal Storm Damage Reduction, AK Alaska District							
Annual Allocation		733,400	590,00 0	669,00 0	90,000	450,000	
ARRA Allocation							
Total Allocations	3,298,600	733,400	590,00 0	669,00 0	90,000	450,000	766,200

The study area is located in and near Yakutat. Yakutat is isolated among the lowlands along the Gulf of Alaska, 225 miles northwest of Juneau and 220 miles southeast of Cordova. The reconnaissance study determined that there is a Federal interest in participating in a feasibility study to investigate potential flood damage reduction improvements to protect nearby resources, notably the airport and the world-class fishery resources of the Situk River watershed. Flooding may result from the continued advancement of the nearby Hubbard Glacier, the largest tidewater glacier in North America. Hubbard Glacier, since the start of this study, has continued to reduce the gap to close off Russell Fjord and initiate the sequence leading to a flooding event. The remaining gap in June 2009 was less than 100 meters, and the spring advance of the glacier was over 500 meters. In response to the study authority, the reconnaissance study was initiated in February of 2004. Local interests for this study include the City and Borough of Yakutat and the Alaska Department of Transportation and Public Facilities. Project collaborators include the U. S. Forest Service, the Corps Cold Regions Research and Engineering Laboratory, and glaciologists from the University of Alaska Fairbanks and other academia. The City and Borough of Yakutat is the local sponsor with support from the federally recognized Yakutat Tlingit Tribe. Over 46% of the community is 'Alaska Native.' Subsistence and commercial fishing are the mainstay of the community.

Fiscal Year 2010 funds are being used to redevelop the Feasibility Cost-Share Agreement in light of the repeal of the authority, Section 117 of P.L.108-447, evaluate the potential area of damage from flooding, continue monitoring of Hubbard Glacier, gather historical data applicable to developing a scenario model of Hubbard Glacier and the ice dams that it produces, develop potential flood damage mitigation measures, and progress the feasibility study to a Feasibility Scoping Meeting. The study is being done in collaboration with the U.S. Forest Service and local and state interests. Fiscal Year 2011 funds will be used to obtain numerical values for the ice processes on Hubbard Glacier and initiate development of a model for the ice dam stability. The watershed feasibility study will be continued into identification of potential alternatives, and gathering of detailed economic, environmental, engineering and regulatory data for analysis of actions that could reduce the impact of a Hubbard Glacier closure on Yakutat. Glaciological data may be collected to develop a model for predicting the potential for a stable ice dam to develop. If a stable ice dam develops and continues, the lake level of Russell Fiord will rise and overflow into the Situk River, causing major environmental and economic losses to the area. The fisheries of the Situk River are the economic lifeline of community.

	Amounts in ($000)
Total Estimated Study Cost	4,978,600
Reconnaissance Phase (Federal)	486,600
Feasibility Phase (Federal)	2,812,000
Feasibility Phase (Non-Federal)	1,680,000

Completion of the feasibility study is scheduled for completion in Fiscal Year 2012.

NAVIGATION

CONSTRUCTION

APPROPRIATION TITLE: Construction, Fiscal Year 2011

Division: Pacific Ocean

PROJECT: Akutan Harbor, Alaska (Continuing)

LOCATION: Akutan Harbor is located in southwest Alaska about 40 miles east of Unalaska/Dutch Harbor.

DESCRIPTION: The project consists of two rubblemound breakwater totaling 600 feet in length, dredging an entrance channel to a depth of -18 feet MLLW and dredging a 15-acre mooring basin.

AUTHORIZATION: Section 138 of Public Law 109-103, (Energy and Water Development Appropriations Act, 2006)

REMAINING BENEFIT-REMAINING COST RATIO: 2.5 to 1.0 at 7 percent.

TOTAL BENEFIT-COST RATIO: The current benefit to cost ratio is 2.5 to 1.0 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.8 to 1.0 at 5-5/8 percent (FY 2004).

BASIS OF BENEFIT-COST RATIO: Feasibility Report of July 2004 modified by the Post Authorization Change Report of November 2007.

SUMMARIZED FINANCIAL DATA:

		$		ACCUM PCT OF EST FED COST	STATUS (1 January 10)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost			29,468,000		Entire Project	0	
Unprogrammed Construction							
Programmed Construction		29,468,000		PHYSICAL DATA			
				Breakwater length (ft)	600		
Estimated Non-Federal Cost			3,222,000	Entrance Channel			
Programmed Construction		3,222,000		Width (ft)	150		
Cash Contributions	3,075,000			Depth (ft)	-18		
Other Costs	147,000			Mooring Area			
Total Estimated Programmed Construction Cost				Total Area	-14 to -18		
Total Estimated Unrpogrammed Construction Cost				MLLW Depth (ft)			
Total Estimated Project Cost			32,690,000	Acres	15.0		

APPROPRIATION TITLE: Construction, Fiscal Year 2011

Division: Pacific Ocean

SUMMARIZED FINANCIAL DATA (Continued)		Accmltd % est. FED cost
Allocations thru 30 September 2007	0	
Allocations for FY 2008	468,000	
Allocations for FY 2009 (ARRA)	22,000,000	
Conference Allowance for FY 2010	0	
Allocations for FY 2010 (ARRA)	0	
Allocations through FY 2010	22,468,000	
Programmed Balance to Complete after FY 2011	0	
Unprogrammed Balance to Complete after 2011	0	
Allocations requested for FY 2011	7,000,000	

JUSTIFICATION: Protected moorage is needed for the fleet of commercial fishing vessels that use Akutan as a base of operations. Local residents report the most severe winds blow from the southeast/east and southwest directions and along the length of the bay throughout the fall and winter months. The eastern part of the bay can sustain waves of 8 feet or more during particularly severe easterly/southeasterly storms. Waves of 5 to 6 feet are common during major storms in the mid-bay vicinity off the Trident Seafood processing plant. During storms, vessels anchor in the head of the bay for protection, but still maintain a crew watch and often maintain power to prevent dragging their anchors. Vessels requiring storm protection include crabbers, trawlers, smaller vessels and skiffs. Fish processing is the major industry attracting vessels to Akutan. Average annual benefits are estimated to be $4,732,419.

FISCAL YEAR 2010: The allocated amount of $22,000,000 will be applied to initiate the contract for the mooring basin, including slope protection as follows:

Mooring Area Complete 20,700,0	00
Complete Construction Management	1,300,000
Total	22,000,000

FISCAL YEAR 2011: The requested amount of $7,000,000 will be applied to the contract for the entrance channel and breakwater:

Entrance channel and Breakwater complete	6,600,000
Complete Construction Management	400,000
Total	7,000,000

APPROPRIATION TITLE: Construction, Fiscal Year 2011 Division: Pacific Ocean

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation Reimbursements Costs	Payments during construction and reimbursements ($)	Annual operation, maintenance, and replacement costs ($)
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	147,000	
Pay 10 percent of the costs allocated to deep draft navigation during construction.	3,222,000	
Pay 25 percent of the costs allocated to general navigation features during construction.	0	
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction is partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations. and dredged or excavated material disposal areas provided for commercial navigation.	3,075,000	
Local Service Facilities		
Total Non-Federal Costs	6,440,000 0	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs over a period not to exceed thirty years.

STATUS OF LOCAL COOPERATION: The City Aleutians East Borough, Alaska, has agreed to meet all requirements of local cooperation. The Project Cooperation Agreement and the agreement was signed 29 July 2008.

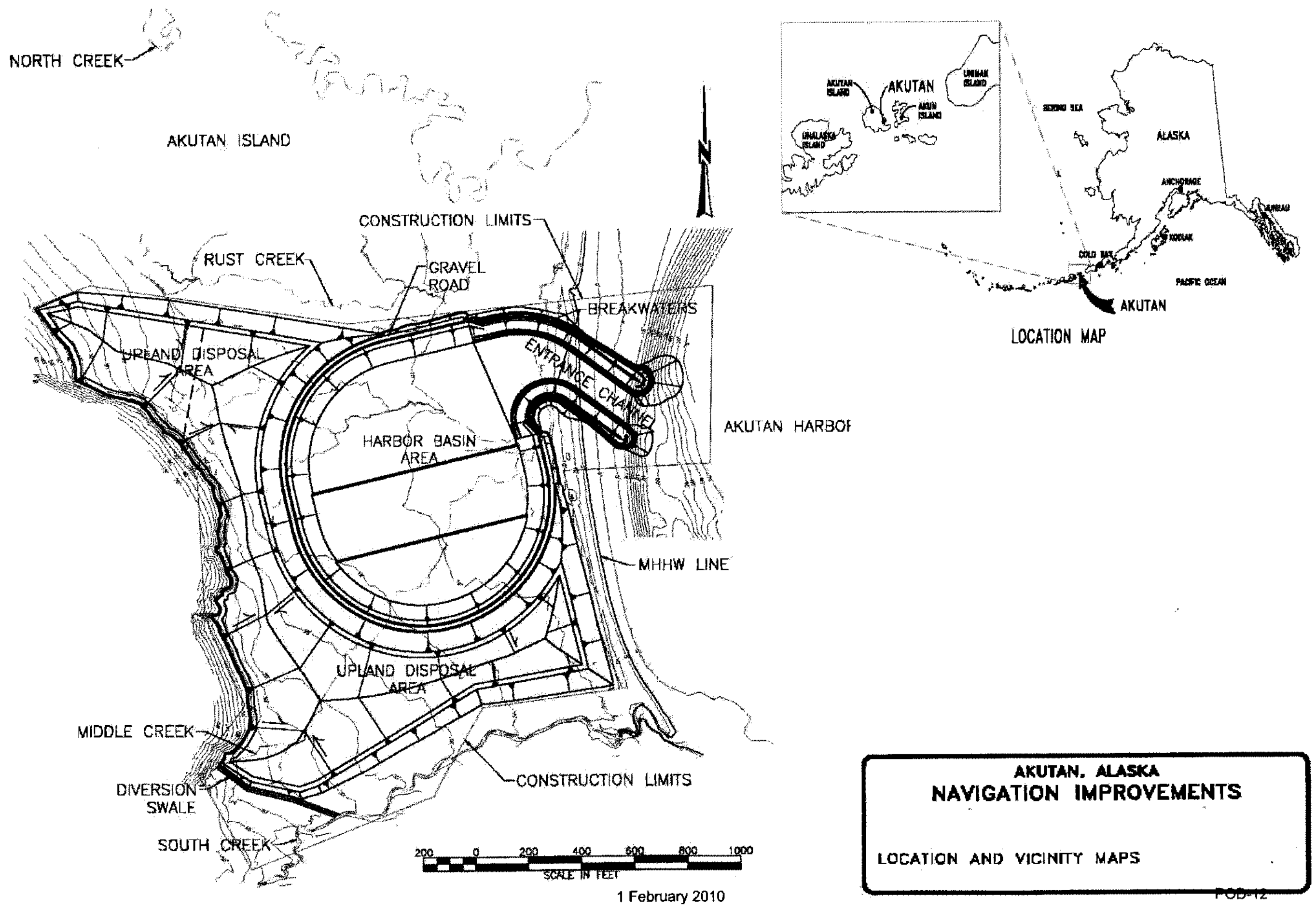
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps of Engineers) Cost Estimate of $32,220,000 has increased as a result of higher rock prices.

APPROPRIATION TITLE: Construction, Fiscal Year 2011 Division: Pacific Ocean

STATUS OF ENVIRONMENTAL IMPACT STATEMENT AND COMPLIANCE WITH CLEAN WATER ACT:

- The final environmental impact statement was submitted to EPA in August 2004 and the Record of Decision was signed in January 2008.
- The provisions of Section 404 of the Clean Water Act were met with the submission of the EIS including a Section 404 (b)(1) evaluation to Congress in May 2008.

OTHER INFORMATION: Initial planning funds (PED) were received in FY 2005 and construction funds in FY 2008.



1 February 2010

AKUTAN, ALASKA
NAVIGATION IMPROVEMENTS

LOCATION AND VICINITY MAPS

POD-12

AQUATIC ECOSYSTEM RESTORATION

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: Pacific Ocean

Study Total Ala Wai Canal, Oahu, HI Honolulu District		Estimated Federal Cost	Allocation Prior to FY 2008	Allocation FY 2008	Allocation FY 2009	Allocation FY 2010	Tentative Allocation FY 2011	Additional to Complete After FY 2011
Annual	Allocation		1,696,000	689,000	167,00 0	408,000	408,000	
	ARRA Allocation	0						
	Total Allocations	4,010,000	1,696,000	689,00 0	167,000	408,000	408,000	642,000

The Ala Wai watershed encompasses more than 16 square miles. The Ala Wai Canal within the watershed is a two-mile long man-made waterway constructed during the 1920's to create and protect the Waikiki area on the island of Oahu (See attached Map). The carrying capacity of the Canal has been significantly reduced by accumulation of silt and debris from the Manoa, Palolo, and Makiki streams. During the November 1965 and December 1967 storms and passage of Hurricane Iniki in 1992, the Ala Wai Canal was overtopped causing flooding in the Waikiki district. Additionally, the 30 October 2004 storm in Manoa is estimated to have caused over $100M in damages to property and irreplaceable documents in the University of Hawaii's library, causing the community and agencies to seek the expansion of the Ala Wai Canal project for flood mitigation measures in the upper stream areas. It is estimated that approximately 2,200 properties would be affected by a 100-year storm event in the Ala Wai watershed.

The Ala Wai Watershed supports important habitat for marine, estuarine and freshwater ecosystems. Endemic amphidromous species such as native gobies and shrimp that had once utilized the Ala Wai Watershed as a migratory pathway from the mountains to the sea have experienced significant losses in population due to loss of habitat. A rare native gastropod – the Hapa Wai – resides in the Manoa-Palolo Canal. The coral reef ecosystems in the Waikiki Marine Line Conservation District is threatened by land based pollutants and other activities. The accumulation of silt and pollutants over the years has resulted in a steady decline in water quality and has affected water flow and circulation.

The Ala Wai Canal Project, a cooperative effort with Federal, State and local agencies to develop an effective comprehensive management and restoration plan, will need to be implemented to restore aquatic habitat and biological diversity once present in the canal and upstream tributaries. The project goal is

Objectives of the study include flood risk management, ecosystem restoration, addressing coastal issues, improving water quality, improving water supply, improving recreation opportunities, addressing infrastructure maintenance issues and stakeholder involvement. The feasibility cost sharing agreement (FCSA) was initially executed in April 2001 with the State Department of Land and Natural Resources and amended in August 2006 to expand the study scope and cost.

Fiscal Year 2010 funds are being used to continue feasibility phase studies to include completion of the feasibility scoping meeting package and development of the alternatives formulation briefing package.

Fiscal Year 2011 funds will be used to continue the feasibility phase studies to include completion of the alternatives formulation briefing package, conducting the Alternatives Formulation Briefing, conducting the Independent External Peer Review at 100% federal cost, and publication of the Draft EIS. Due to complexities in conducting the hydraulic modeling for this watershed, the lack of existing resources and models for ecosystem valuation and restoration planning in Hawaii, and the complexities of evaluating multi-purpose alternatives in an urbanized watershed, the project budget is anticipated to increase by approximately $2.5M. The Amendment to the FCSA is scheduled to be completed in FY10. The total estimated cost of the feasibility phase is $7.82M, which will be shared on a 50-50 percent basis by Federal and non-Federal interests, except for the Independent Peer Review which is funded at 100% federal cost. A summary of study cost sharing is as follows:

	Amounts in ($000)
Total Estimated Study Cost	7,945,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	4,010,000
Feasibility Phase (Non-Federal)	3,810,000

The reconnaissance phase was completed in FY2001. The feasibility study is scheduled to be completed in FY2013.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Pacific Ocean Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2008	Tentative Allocation Alloc FY 2008	ation Alloc FY 2009	ation Alloc FY 2010	ation FY 2011	Additional to Complete After FY 2011
Matanuska Watershed, AK Alaska District							
Annual Allocation		492,000	209,000	96,000	90,000	100,00 0	
ARRA Allocation				372,000			
Total Allocations	3,029,000	492,000	209,00	0 468,00 0	90,000	100,000	1,670,000

The Matanuska-Susitna Watershed is located about 50 miles north of Anchorage in the Matanuska-Susitna Borough. The Matanuska-Susitna Borough has experienced accelerated development in recent years (~4%/year) with resulting concerns about flooding, stream bank erosion, aquatic habitat degradation, and overall health within their watershed. The collaborative study includes partners such as the Matanuska Watershed Coalition, The Native Village of Chickaloon, and the Mat-Su Salmon Partnership, a pilot project under the National Fish Habitat Initiative. The study will investigate water resource related concerns in the Matanuska and Susitna watershed and develop a comprehensive water resources plan and provide the Borough, Federal and State agencies with a planning tool that will assist them in making better decisions related to future development within the watershed. In addition working closely with the District Regulatory personnel as well as USEPA and USFWS, the study will implement a comprehensive approach to managing wetland impacts and evaluating wetland quality so that appropriate mitigation can be applied on a consistent basis throughout the watershed. A Feasibility Cost Sharing Agreement was executed in September, 2007.

The study is being conducted under the Rivers and Harbors in Alaska Resolution, 2 December 1970. Existing funds are being used to continue feasibility study activities in Fiscal Year 2010. Fiscal Year 2011 will be used to continue the feasibility study and gather important data needed to evaluate the water resource needs of the watershed.

	Amounts in ($000)
Total Estimated Study Cost	5,763,000
Reconnaissance Phase (Federal)	295,000
Feasibility Phase (Federal)	2,734,000
Feasibility Phase (Non-Federal)	2,734,000

Completion of the feasibility study is scheduled for completion in Fiscal Year 2013

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Anchorage Harbor, AK

AUTHORIZATION: 1) Section 101, Rivers and Harbors Act of 1958 (House Doc. 34, 85th Congress, 1st Session). 2) Section 199 of WRDA 1976. 3) Section 118 of EWDA 2005.

LOCATION AND DESCRIPTION: The Port of Anchorage is located at the northern end of Cook Inlet in south-central Alaska. The project accommodates three dry cargo berths and two petroleum handling facilities. It serves as Alaska's regional and DOD strategic port and provides services to approximately 90% of the total population of Alaska, including five military bases. The Corps of Engineers has been dredging the Port of Anchorage annually at full federal expense to its authorized depth of –35 feet MLLW since the 1960's. Vessels with drafts up to 40 feet dock during high tide and offload their cargo, thus requiring full project depth year around.

CONFERENCE AMOUNT FOR FY2010: $17,732,000
BUDGET FOR FY2011: M: $14,013,000 O: $0.0 T: $14,013,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $14,013,000 - Funds will be used to perform annual maintenance dredging to remove an estimated 1.4 million cubic yards of glacial silts and sands from the existing and newly expanded project area. The annual dredging period is from 15 May through 1 November. These funds would improve navigation performance by maintaining the availability and reliability of Anchorage Harbor that receives 90% of all goods entering the State of Alaska. Anchorage Harbor has been designated a strategic port and is also used by military vessels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Port of Anchorage is expanding the intermodal facility that will move the dock 400 feet seaward and lengthen it by about 5,000 ft, nearly tripling its length, and doubling the uplands storage capacity. The dock expansion will increase the dredging area maintained by the Corps from approximately 115 acres to 202 acres. An Environmental Assessment and Findings of no Significant Impact was completed in August 2008.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Barbers Point, Pacific Regional Visitor Center, Oahu, HI

AUTHORIZATION: Work is authorized in accordance with the general requirements of River and Harbor and Flood Control laws and administrative policy.

LOCATION AND DESCRIPTION: The Pacific Regional Visitor Center is located on the second floor of historic Battery Randolph at Fort DeRussy, Waikiki

CONFERENCE AMOUNT FOR FY2010: $191,000
BUDGET FOR FY2011: M: $0 O: $330,000. T: $330,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: N/A

FRM: N/A

Rec: $330,000 Funding provides for full operation of the Regional Visitor Center (RVC) and continuation of exhibit upgrades initiated in FY10. The RVC functions as an informational visitor center designed to educate the public of the Corps work in the Pacific and focuses on the Honolulu District's Civil Works Water Resources Development Program. The RVC also presents the historic and ongoing relationship between the military and civil works missions in the Pacific. Through the RVC, Honolulu District participates in outreach activities such as Earth Day, Public Lands Day and Water Monitoring Day.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bethel Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 14 July 1960, under Section 107 (P.L. 86-645) as authorized by the Chief of Engineers on 29 June 1978, provides for a 12 acre small boat harbor and 1,270 foot entrance channel by deepening, widening and straightening a portion of Lousetown Slough.

LOCATION AND DESCRIPTION: The Bethel Small Boat Harbor is the only protected Harbor in the Kuskokwim River Delta that provides moorage for approximately 1,200 small boats that come from surrounding smaller villages for food, supplies, and healthcare needs.

CONFERENCE AMOUNT FOR FY2010: $0.0
BUDGET FOR FY2011: M: $234,000 O: $0.0 T: $234,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $234,000 Funds will be used to secure environmental clearances and begin preparation of plans and specifications for a maintenance dredging contract to dredge the small boat harbor. These funds will aid in increasing the reliability and the availability of the harbor.

FRM: NA

Rec: NA

Hydro: NA

ES: NA

WS: NA

OTHER INFORMATION: Continued shoaling in the entrance and maneuvering channels have severely hindered egress/access from/to the harbor.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Chena River Lakes Flood Control Project, AK

AUTHORIZATION: Flood Control Act of 13 August 1968, Public Law 90-483 (House Doc. 148, 90th Congress, 2nd Session) as adopted, provides for construction of a dam and floodway for the Chena River 17 miles east of Fairbanks.

LOCATION AND DESCRIPTION: The Chena River Lakes Flood Control Project is located in North Pole, Alaska. The 20,000-acre project consists of an 8 mile long zoned rock-filled dam that provides flood protection to Fairbanks, Alaska, and adjacent areas including Fort Wainwright, from recurring flood damage from the Chena River.

CONFERENCE AMOUNT FOR FY2010: $2,676,000
BUDGET FOR FY2011: M: $1,043,000 O: $1,956,000 T: $2,999,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: N/A

FRM: $2,276,000 is requested to provide annual project operations and maintenance for flood control. Approximately $673,000 is required to replace 25-year old hydrometeorlogical equipment and upgrade communications lines to the dam and project office to satisfy security requirements. Operation of the dam at the minimum level of service prevents downstream flooding on average about once each year with average annual damages prevented of $9,231,000

Rec: $333,000 to perform routine management of the non-leased recreational lands and fund the annual law enforcement cooperation agreement with the local police department.. Funding of thie increment prevents increased vandalism and prevents exposure of the Government to unwanted safety liabilities related to use of public lands.

Hydro: N/A

ES: $390,000 to perform routine environmental compliance and stewardship activities relating to the natural resources managment program. Funding of this increment will decrease the likelihood of citations and notice of violations for improper storage of hazardous materials, improper or unsafe working conditions, or environmental damage due to poor/insufficient maintenance of project features.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dillingham Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 390, 84th Congress, and 2nd Session) as adopted.

LOCATION AND DESCRIPTION: Dillingham Harbor provides half-tide access and all-tide moorage for about 320 commercial fishing and recreational craft. Commercial salmon fishing is the cornerstone of the community's economy with subsistence hunting and fishing continuing as vital local activities. The harbor is also a harbor of refuge, providing both moorage and an alternate landing area for lighterage vessels. All transportation to the area is by water or air.

CONFERENCE AMOUNT FOR FY2010: $841,000
BUDGET FOR FY2011: M: $955,000 O: $0 T: $955,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $955,000 - Funds will be used to continue annual maintenance dredging of the harbor and entrance channel to the congressionally authorized depth of +2 feet MLLW. This funding would maintain reliability and availability to commercial and subsistence fishing vessels to off-load fish products or re-supply for continued fishing.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Douglas Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 286, 84th Congress, 2nd Session) as adopted, provides for a boat basin of 5.2 acres with entrance channel both to a depth of -12 feet MLLW and protected by a rock jetty about 90 feet long off the northerly shore of Juneau Isle adjacent to the basin entrance.

LOCATION AND DESCRIPTION: Douglas Harbor is one of three Corps of Engineers projects that provide moorage for over 100 large commercial fleet and recreational vessels in the Juneau/Douglas area. The government, commercial fishing, and tourism provide a unique and diversified economy in the metropolitan area. All transportation to the area is by sea or air.

CONFERENCE AMOUNT FOR FY2010: $0
BUDGET FOR FY2011: M: $241,000 O: $0.0 T: $241,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (BY BUSINESS LINE) FOR FY 2011:

N: $241,000 - Funds will be used to secure environmental clearances and begin preparation of plans and specifications for a maintenance contract to dredge the harbor. Funding will aid in restoration of the availability of project depth within the harbor.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Haines Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 14 July 1960 (Report in Office of Chief of Engineers) adopted as amended under Section 107, 21 December 1971, provides for enlarging an existing non-federal small boat harbor from 1.8 acres at -10 feet MLLW to 4.2 acres at -12 feet MLLW and -14 feet MLLW; construction of an entrance channel 75 to 100 feet wide at -15 feet MLLW; modification of the breakwater protection by removal of the existing seaward leg and construction of an offshore breakwater 905 feet in length with armor rock protection. The basin enlargement is to be funded by local interests.

LOCATION AND DESCRIPTION: Haines small boat harbor is used by local and transient fishermen primarily employed by halibut and gillnet salmon fishing. The 200 vessel capacity harbor is also home to resident and recreational craft. Haines is an important link in the Alaska Marine Highway system located at the southern end of the Haines highway that links
southeastern Alaska by road to the interior of Alaska and the Yukon Territory.

CONFERENCE AMOUNT FOR FY2010: $0.0
BUDGET FOR FY2011: M: $241,000 O: $0.0 T: $241,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $241,000 - Funds will be used to secure environmental clearances and begin preparation of plans and specifications for a maintenance dredging contract to dredge the harbor. Funding would aid in restoration of availability of authorized project depth within the harbor.
FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Homer Harbor, AK

AUTHORIZATION: 1) Rivers and Harbors Act, 3 July 1958 (House Doc. 34, 85th Congress, 1st. Session) as adopted. 2) Rivers and Harbors Act, 19 August 1964 (P.L. 88-451) authorized as amended by the Chief of Engineers, 21 December 1971.

LOCATION AND DESCRIPTION: Homer Harbor located in Homer, Alaska, provides sheltered moorage for approximately 1,525 vessels. The project extends the fishing season an extra four months each year and is an integral part of Homer's economy.

CONFERENCE AMOUNT FOR FY2010: $380,000
BUDGET FOR FY2011: M: $513,000 O: $0.0 T: $513,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $513,000 - Funds will be used to perform annual maintenance dredging of the harbor entrance channel. This would enable commercial and subsistence fishing vessels harbor to off-load fish products for processing and be able to re-supply for continued operations. These funds would assure the continued availability of this critical harbor of refuge for the Cook Inlet commercial and subsistence fishing fleet.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The maintenance dredging contract also includes maintenance dredging at the adjacent U. S. Coast Guard mooring basin using contributed funds provided under an interagency agreement. Waterborne commerce in 2008 was 230,068 tons.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ninilchik Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 3 July 1958 (House Doc. 34, 85th Congress, and 1st Session) as adopted.

LOCATION AND DESCRIPTION: The Ninilchik Harbor is located in Ninilchik, Alaska, approximately 100 air miles southwest of Anchorage. The small boat basin provides protected moorage with half-tide access for 32 vessels. The basin and channel also provide access for Cook Inlet commercial fishing boats to unload their catch and take on supplies. The basin is an important harbor-of-refuge for lower Cook Inlet.

CONFERENCE AMOUNT FOR FY2010: $0.0
BUDGET FOR FY2011: M: $420,000 O: $0.0 T: $420,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY_2011:

N: $420,000 - Funds will be used to perform annual maintenance dredging of the basin and entrance channel. Funding will assure access for the commercial and subsistence fishing fleet to this critical harbor of refuge.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Nome Harbor, AK

AUTHORIZATION: Rivers and Harbors Act, 8 August 1917 (House Doc. 1932, 64th Congress, 2nd Session) as adopted by Public Law No. 37; and Section 101(a) (3), Public Law 106-53, WRDA 1999 for project improvements.

LOCATION AND DESCRIPTION: Nome Harbor is located on the southern coast of the Seward Peninsula in western Alaska. The city is approximately 540 miles northwest of Anchorage, and is the transportation and commerce center for Northwest Alaska. The recently completed improvement project consists of a new 3,600 foot-long entrance channel protected by a 3,025-foot long rubblemound breakwater, a new causeway bridge, a 270-foot long rubblemound breakwater extension on the existing causeway, and sediment collection basins. The harbor provides protected moorage for the existing 170 vessels as well as a fleet of 40 barges and transshipment vessels providing cargo and fuel service to the region.

CONFERENCE AMOUNT FOR FY2010: $779,000
BUDGET FOR FY2011: M: $973,000 O: $0.0 T: $973,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $973,000 - Funds will be used to perform annual maintenance dredging. Funding will assure 90% availability for this critical harbor of refuge, subsistence, and major commercial distribution and transfer center for Northwest Alaska and Seward peninsula.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Petersburg Harbor, AK

AUTHORIZATION: 1) The Rivers and Harbors Act, 30 August 1935 (House Doc. 483, 72nd Congress, 2nd Session) as adopted. 2) The Rivers and Harbors Act, 2 March 1945 (House Doc. 670, 76th Congress, 3rd Session) as adopted. 3) The Rivers and Harbors Act, 2 September 1954 (House Doc. 501, 83rd Congress, 2nd Session) as adopted

LOCATION AND DESCRIPTION: Petersburg is located on the northwest end of Mitkof Island, where Wrangell Narrows meets Frederick Sound. It lies midway between Juneau and Ketchikan, about 120 miles from either community. Since its beginning, Petersburg's economy has been based on commercial fishing and timber harvests. It is currently one of the top-ranking ports in the U.S. for the quality and value of fish landed. 469 residents hold commercial fishing permits.

CONFERENCE AMOUNT FOR FY2010: $482,000
BUDGET FOR FY2011: M: $500,000 O: $0.0 T: $500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $500,000 - Funds will be used to secure environmental clearances and prepare contract plans and specifications for a maintenance dredging contract to dredge the North Harbor. Funding will increase harbor availability to 90%, and will assure access to this critical harbor of refuge.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The city of Petersburg plans to renovate the North Harbor in 2011, to include rebuilding the float system. The city has requested that the Corps of Engineers perform maintenance dredging to restore the project to its congressionally authorized depths after removal of the old float system and before construction of the replacement system. The material to be dredged is contaminated with Petroleum, Oils, and Lubricants (POL) which must either go to an upland disposal site, or be specially treated since it is unsuitable for in-water disposal. The Corps and the City met on several occasions to discuss various dredging options and conceptual disposal site plans. Waterborne commerce for 2008 was 163,917 tons.

SOUTH ATLANTIC DIVISION

SOUTH ALANTIC DIVISION
JUSTIFICATION MATERIAL
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SOUTH ATLANTIC DIVISION

JUSTIFICATION OF ESTIMATE

SAD-5

FLOOD RISK MANAGEMENT

SAD-6

INVESTIGATIONS

SAD-7

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study Total Augusta/Richmond County Flood Reduction, Georgia Savannah District	Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Annual Allocation	3,456,000	2,132,000 541,00	0	48,000	157,000	578,000	0
Recovery Act Allocations to Date				0	0		
Total Allocations	3,456,000	2,132,000 541,00	0	48,000	157,000	578,000	0

The study area is in Richmond County and areas contiguous to it in the northeastern part of the state of Georgia, comprising an area of approximately 326 square miles on the West Side of the Savannah River, and is part of the Savannah River Basin that comprises about 11,000 square miles. The economy of the study area is highly diversified, including industry, agriculture, and maritime. It is the trade center for 13 counties in Georgia and 5 counties in South Carolina. Because of the rapid growth of the unincorporated areas, considerable development has occurred in the flood plains of the streams in the study area. This commercial, industrial, and residential expansion in and adjacent to the flood plains in the Richmond County area has resulted in recent widespread flood problems occurring in many parts of the county. The October 1990 flood resulted in the loss of four lives and thousands of people were left homeless. Damage estimates, including damages to water lines, roads and bridges, wastewater systems, the University Hospital complex, residences and automobiles, exceeded $47,000,000. The feasibility study identified several flood control alternatives that are concentrated in three water basins in Richmond County: Rae's Creek, Rocky Creek and Augusta Canal. The recommended project, estimated to cost $19,523,000 with an estimated Federal cost of $10,803,000 and an estimated non-Federal cost of $8,720,000, includes construction of 2 flood detention basins, a berm, 2500 feet of ecosystem restoration, 2.6 miles of recreation trail, a 450 foot weir, and installation of four or more remote control valves for flood gates. The average annual benefits amount to $1,700,000, all for flood damage reduction. The benefit-cost ratio is 4.72 to 1 at 4 7/8 percent based upon the latest economic analysis dated Oct 2007. A Feasibility Cost Sharing Agreement was executed with the local sponsor, Augusta-Richmond County, in November 1999. The study will continue development of structural and non-structural alternative analysis for the Augusta Canal portion of the study and proceed with geotechnical analysis necessary to identify viable alternatives for the Rocky Creek Basins.

Fiscal Year 2010 funds are being utilized to continue the Augusta Canal and Rocky Creek feasibility studies. Fiscal Year 2011 funds will be used to continue feasibility studies on Augusta Canal and Rocky Creek. The preliminary estimated cost of the feasibility phase is $6,712,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,812,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	3,356,000
Feasibility Phase (Non-Federal)	3,356,000
ARRA Allocation	0

The reconnaissance phase was completed in November 1999. The feasibility study is scheduled for completion in September 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional To Complete After FY 2011 $
Edisto Island, South Carolina Charleston District							
Annual Allocation	975,000	375,000	215,000	104,000	67,000	114,000	100,000
Recovery Act Allocations				0	0		
Total Allocations	975,000	375,000	215,000	104,000	67,000	114,000	100,000

Edisto Island is a barrier island approximately 4.5 miles in length and is located approximately 30 miles southwest of Charleston, South Carolina. The northeastern portion of Edisto Island is a state park, which includes camping sites and cabins, while the remainder of the island is primarily single-family residential. The Town of Edisto Beach has developed as a permanent and seasonal residential community with limited commercial development. One commercial structure and 220 residences have been affected by storm damage. It is estimated that seven structures along the 700 block could fail completely and other residential structures could incur damage from a hurricane. Opportunities exist at Edisto Island to analyze and develop a recommendation that will provide for reduction of hurricane and storm damages to the beachfront structures located within the Town of Edisto Beach. This would be realized through placement of material along the beachfront that would sustain a wider beach profile through this reach of the study area. Additionally, environmental restoration and protection opportunities exist through the entire study area, primarily for protection of the habitat that exists at Edisto Beach State Park and to provide more stable turtle nesting habitat along the entire Edisto Island shoreline. The Town of Edisto Beach is the cost-sharing sponsor and the Feasibility Cost Sharing Agreement was executed on 29 September 2006.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study. Activities will consist of coastal engineering modeling, environmental assessment and coordination, and economic analysis. Fiscal Year 2011 funds will be used to complete the feasibility phase of the study. Activities will consist of plan formulation alternatives, environmental assessment and coordination and economic modeling. The preliminary estimated cost of the feasibility phase is $1,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$1,850,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	875,000
Feasibility Phase (Non-Federal)	875,000

The reconnaissance phase was completed in September 2006. The feasibility study is scheduled for completion in September 2012.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (FRM)							
Surf City and North Topsail Beach, NC Wilmington District							
Annual Allocation	1,125,000	0	0	0	73,000	300,000	752,000
Recovery Act Allocations to Date				0	0		0
Total Allocations	1,125,000	0	0	0	73,000	300,000	752,000

The towns of Surf City and North Topsail Beach are located in the central and northern part of Topsail Island in the southeastern part of North Carolina. Topsail Island is a barrier island located about 25 miles northeast of Wilmington, NC between New Topsail Inlet and New River Inlet. As a result of Hurricane Fran in 1996 and Hurricane Floyd in 1999, the damage to publicly owned properties exceeded $5,000,000 and the total losses paid to privately owned property by FEMA was about $32,000,000. Further, Hurricanes Bertha, also in 1996, and Fran eroded at least 25 feet of coastline leaving 66 percent of the Surf City and North Topsail Beach shoreline without its natural vegetation. This erosion, along with recent hurricanes, has either severely damaged or destroyed the primary dune system along the ocean shoreline leaving the towns vulnerable to damage from future storm events. Likely alternative includes constructing a sand dune at an elevation of 15 feet above mean water level and a berm with a crown width of 50 feet and a top elevation of 7 feet above mean water level over approximately 10 miles of shoreline. Both sponsors, the towns of Surf City and North Topsail Beach, support the project as evidenced by their execution of the feasibility cost sharing agreement in February 2002. They understand and are ready to sign the PED cost sharing agreement upon completion of the feasibility phase and have funds available to finance the PED portion of the project. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. The feasibility phase is scheduled for completion in July 2010.

Total Estimated Preconstruction Engineering and Design Costs	$1,500,000	Total Estimated Preconstruction Engineering and Design Costs	$1,500,000
Initial Federal Share	1,125,000	Ultimate Federal Share	975,000
Initial Non-Federal Share	375,000	Ultimate Non-Federal Share	525,000

At this time, the project is not authorized for construction. Once authorized and in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 and 1999, the non-Federal sponsor must provide all lands, easements and rights of way, including suitable borrow and spoil disposal areas; pay 35 percent of the first costs allocated to flood damage reduction; pay 50 percent of the periodic renourishment costs; and bear all costs of operation, maintenance, repair, replacement and rehabilitation of constructed facilities. Fiscal Year 2010 funds will be used to complete the feasibility phase and initiate PED. Fiscal Year 2011 funds will be used to continue PED. PED is scheduled to be completed in September 2014.

SAD-11

CONSTRUCTION

APPROPRIATION TITLE: Construction - Shore Protection (Flood Risk Management)

PROJECT: Dade County, Florida (Continuing)

LOCATION: Dade County is on the southeast coast of Florida. The project area consists of 9.3 miles of the Atlantic shoreline in Dade County from Government Cut north to Bakers Haulover Inlet, 1.2 miles at Haulover Beach Park, and the section of beach along 2.5 miles north of Haulover Beach Park at Sunny Isles.

DESCRIPTION: The project provides for a protective and recreational beach with a dune for beach erosion control and hurricane protection along 9.3 miles and a protective and recreational beach along 3.7 miles. The berm width is 50 feet at elevation +9.0 feet MLW for 10.5 miles and 20 feet wide at +9.0 feet MLW for 2.5 miles.

AUTHORIZATION: Flood Control Act of 1968, Water Resources Development Act of 1974, Supplemental Appropriations Act of 1985, and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: 5.4 to 1 at 3-1/4 percent.

INITIAL BENEFIT-COST RATIO: 5.1 to 1 at 3-1/4 percent (FY 1965).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the June 1965 Dade County Report at October 1964 price levels. Total benefits are from the April 1985 Dade County, North of Haulover Beach Park, Design Memorandum at October 1984 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$192,900,000	
Initial Construction		$ 47,309,000		
Periodic nourishment		145,591,000		
Estimated Non-Federal Cost			$179,400,000	
Initial Construction		40,647,000		
Cash Contributions	$ 38,808,000			
Other Costs	1,839,000			
Periodic Nourishment		138,753,000		
Cash Contributions	138,753,000			
Other Costs	0			
Total Estimated Project Cost			$372,300,000	
Initial Construction		$ 87,956,000		
Periodic Nourishment		$284,344,000		
Allocations to 30 September 2007			$82,840,900	
Allocation for FY 2008			0	
Allocation for FY 2009			0	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			0	
Allocation for FY 2010			0	
Allocations through FY 2010			82,840,900	
Allocation Requested for FY 2011			11,000,000	
Programmed Balance to Complete after FY 2011			99,059,100	
Unprogrammed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Breakwaters and Seawalls		
Jetty Extension	100	Aug 1976
Upgrading N. Jetty at Government Cut	100	Nov 1983
Jetty Rehabilitation at Haulover Inlet	100	Nov 1986
Beach Replenishment		
Initial Fill	100	Aug 1989
Periodic Nourishment		
Sunny Isles (Portion)	0	TBD
Dade County(Remainder)	10	TBD
Entire Project	40	TBD

Division: South Atlantic District: Jacksonville Dade County, FL

1 February 2010

PHYSICAL DATA

Jetty Extension		
Initial Beach Fill	15,597,000	Cubic Yards
Advance Nourishment	450,000	Cubic Yards
Periodic Nourishment	3,540,000	Cubic Yards/10 years

JUSTIFICATION: The Dade County shore, occupied by Miami Beach and a number of smaller communities, is highly developed and probably represents the most densely concentrated resort area in the world. The area is heavily visited by tourists throughout the year. The estimated current attendance for the project shore exceeds 15 million annually. Prior to the initial beach fill, recession of the shore caused loss of valuable beaches and property and placed seawalls and other structures under direct wave attack. At a number of locations, erosion undermined or threatened to undermine shorefront structures. Dade County lies in a zone of relatively high hurricane frequency, and many of the most intense hurricanes of record have passed over or near the area. Storm surge and waves generated in the ocean and in Biscayne Bay by past hurricanes have caused major tidal flooding in the project area. A severe hurricane crossing the area on a critical path could cause a major flood disaster. The September 1926 hurricane devastated Miami and took 100 lives. Hurricane Andrew impacted the shorefront in Dade County in August 1992. The project prevented an estimated $20 million in damages to shorefront development, with a loss of only 2 percent of the beach fill. The beach fill loss due to Hurricane Andrew was restored under the authority of PL 84-99 during the overall renourishment of the project during FY97 and FY99. The beaches of Dade County are of prime importance as tourist attractions. It is essential to the economy of the area that the beaches be maintained and preserved. Average annual benefits are as follows:

Annual Benefits	Amount
Beach Erosion Control	$ 3,795,000
Recreation	22,181,000
Storm Damage Prevention	1,879,000
Land Enhancement	125,000
Total	$27,980,000

FISCAL YEAR 2010: Fiscal Year 2010 funding was not requested.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate Periodic Nourishment	$ 9,130,000
Planning, Engineering and Design	880,000
Construction management	990,000
Total	$ 11,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way	1,839,000	
Pay 49.8% of the separable costs for FY 03 and beyond, allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	177,561,000	
Total Non-Federal Cost	179,400,000	0

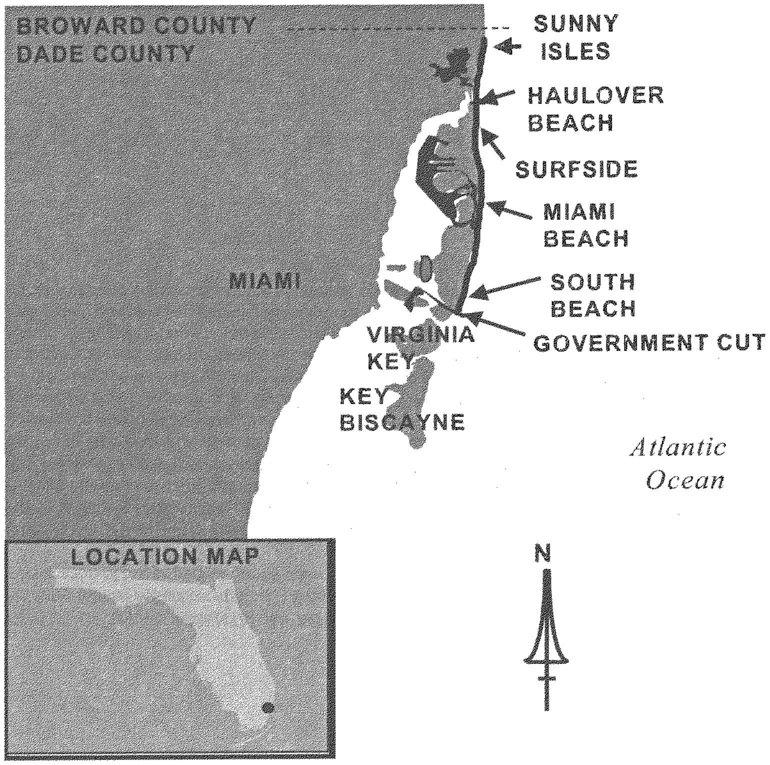
STATUS OF LOCAL COOPERATION: The Dade County Board of County Commissioners, Miami, Florida, is the local sponsor. A Local Cooperation Agreement pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 (PL 91-611) was accepted by the Secretary of the Army on 16 January 1973. A supplemental agreement for reimbursement to the local sponsor for the Bal Harbour portion was approved on 30 June 1976. An agreement for the section north of Haulover Beach Park was signed on 20 June 1986.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $192,900,000 is a increase of $49,700,000 from the latest estimate ($143,200,000) presented to Congress (FY 2002). This change includes the following item:

Item	Amount
Price level and Other Estimating Adjustments	49,700,000
Total	49,700,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ on 27 August 1976. The provisions of Section 404 of the Clean Water Act were met by a Section 404(b)(1) Evaluation in June 1984. A supplement to the EIS was filed with EPA on 18 March 1983. An EIS was completed for the modification of the project at Sunny Isles.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1973 and initial construction funds were appropriated in FY 1977. Funds to initiate construction of the Sunny Isles (North of Haulover Beach Park) segment were appropriated in FY 1985. Section 69 of the Water Resources Development Act of 1974 authorized initial construction by non-Federal interests of the 0.85-mile segment immediately south of Bakers Haulover Inlet (Bal Harbour). Local interests have accomplished the work and reimbursement was provided by funds included in the 1976 Appropriations Act. Section 501(a) of the Water Resources Development Act of 1986 authorized the extension of Federal participation in beach nourishment from 10 years to the life of the project; however, a period of 50 years was used for economic analysis of the project. Offshore sources of sand for renourishment of the project have been almost exhausted along Dade County. Section 935 of WRDA 86 and a Congressional directive from 1999 indicated that only domestic sources of sand are to be utilized for renourishment of this project, unless domestic sources are not available for environmental or economic reasons. A Letter Report was provided to address the lack of remaining offshore sand sources for the sustainability of renourishment in 2007. The ASA(CW) memo dated December 10, 2007, regarding the Letter Report, indicated a three tiered approach for; conducting the next renourishment from domestic sources, evaluating the use of non-domestic sources and conducting a regional sediment management evaluation for the southeast coast of Florida. Preparation of a regional sediment evaluation, that includes the remaining sand sources along the southeast coast of Florida and evaluation of the viability for use of non-domestic sources, is also underway.



DADE COUNTY, FLORIDA

Division: South Atlantic

District: Jacksonville

1 February 2010

Dade County, FL

SA 7

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Duval County, Florida (Continuing)

LOCATION: Duval County is located on the upper east coast of Florida at Jacksonville within 20 miles of the Florida-Georgia state line. The project area extends along the Atlantic Ocean shoreline for about 10 miles south from the south side of the St. Johns River to the St. Johns County line.

DESCRIPTION: The plan of improvement for the Duval County beaches provides for a 60-foot-wide berm extension seaward from the state-established Erosion Control Line. This includes restoration of the protective beach along the 10-mile shoreline and future periodic nourishment at 4-year intervals. The last renourishment was partially completed in January 2003. All work is programmed.

AUTHORIZATION: River and Harbor Act of 1965 and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: 3.0 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.2 to 1 at 3-1/4 percent (FY 1976).

BASIS OF BENEFIT-COST RATIO: Benefits are from the July 1990 Section 934 Reevaluation Study and January 1992 Supplement to the Reevaluation Report at April 1990 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$ 79,500,000	
Initial Construction		$ 6,785,000		
Periodic nourishment		72,715,000		
Estimated Non-Federal Cost			$ 53,200,000	
Initial Construction		$ 7,167,000		
Cash Contributions	4,833,000			
Other Costs	2,334,000			
Periodic Nourishment		46,033,000		
Cash Contributions	46,033,000			
Other Costs	0			
Total Estimated Project Cost			$132,700,000	
Initial Construction		$ 13,952,000		
Periodic Nourishment		$118,748,000		
Allocations to 30 September 2007			$ 27,144,100	
Allocation for FY 2008			0	
Allocation for FY 2009			0	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			0	
Allocation for FY 2010			0	
Allocations through FY 2010			27,144,100	34%
Allocations Requested for FY 2011			7,500,000	44%
Programmed Balance to Complete after FY 2011			44,855,900	
Un-programmed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	Oct 1980
Periodic Nourishment	30	TBD
Entire Project	36	TBD

Division: South Atlantic

District: Jacksonville
1 February 2010

Duval County, FL

SA 9

PHYSICAL DATA

Initial Beach Fill	2,486,000 cubic yards
Periodic Nourishment for FY 1995-1996	1,240,000 cubic yards
Future Periodic Nourishment	960,000 cubic yards every 4 years

JUSTIFICATION: The majority of the project shore is a popular resort area with substantial summer influxes of seasonal residents and visitors. The consolidated City of Jacksonville developed a 450-acre full-facility park, Kathryn Abbey Hanna Park, along the 7,800 feet of ocean shore south of and adjacent to Mayport Naval Station. The park has a native plant and wildlife environment fronted by dune formations that is protected by the project. Atlantic Beach, Neptune Beach, and Jacksonville Beach are highly developed with homes, apartment houses, resort motels and condominiums, and concession facilities throughout. The current estimate of this shorefront development is $155 million. In 1964, storm damage to the Duval oceanfront amounted to about $4,000,000. A 1962 northeast storm caused $2,580,000 in damages. Neptune and Jacksonville Beaches both experienced over $1,000,000 in damages. Federal costs for temporary emergency protection and restoration of storm damage at Jacksonville and Neptune Beaches totaled $1,076,000 in March 1963. At these two beaches and Atlantic Beach, additional emergency work costs totaled $1,391,000 in September 1964 and $309,000 at Atlantic Beach in October 1964. Emergency costs to State, county, cities, and private individuals during the storms were substantial. Since completion of initial construction, there have been over 12 northeasters and, in September 1979, Hurricane David caused water levels that exceeded design criteria. Two northeasters during the Fall of 1981 and the Fall of 1982 occurred during the highest peak tides of the year. These storms and the severe northeasters in September and October 1992 caused accelerated erosion and recession to the extent that renourishment was required in 1995. The authorized project has performed well and has prevented damage to shorefront development. The annual reduction of damages to development based on current shorefront development is estimated to be $3.7 million. Average annual benefits for the proposed 60-foot project are as follows:

Annual Benefits	Amount
Storm Damage Prevention	$ 3,670,000
Recreation Benefits	2,108,500
Total	$ 5,778,500

FISCAL YEAR 2010: Fiscal Year 2010 funding was not requested.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate Periodic Nourishment	$ 6,225,000
Planning, Engineering and Design	600,000
Construction management	675,000

Total	$ 7,500,000

NON-FEDERAL COST: In accordance with the cost-sharing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	$ 2,334,000	
Pay 41.6 percent of the costs allocated to initial fill	4,833,000	
Pay 38.4 percent of the costs allocated to periodic renourishment of the project shoreline	46,033,000	
Total Non-Federal Cost	$53,200,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

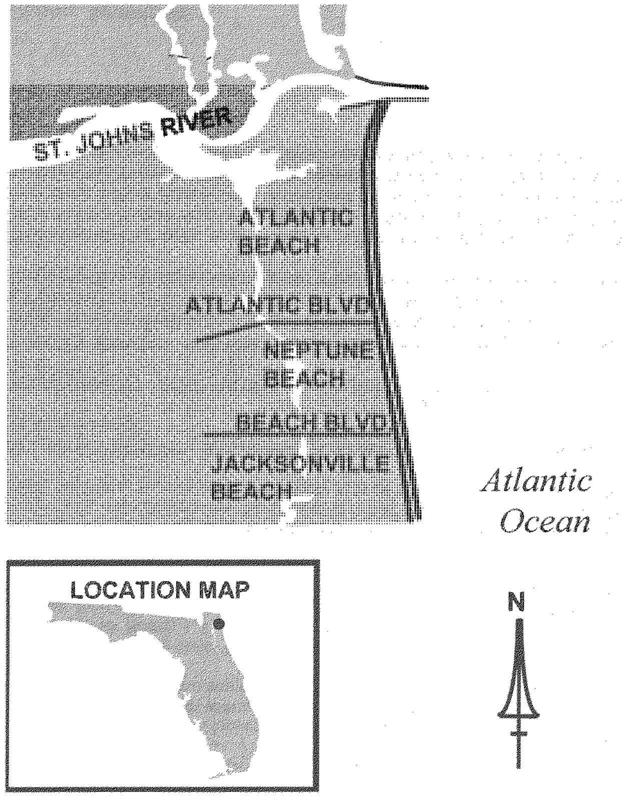
STATUS OF LOCAL COOPERATION: By letter of 18 May 1988, the local sponsor (City of Jacksonville) expressed their interests in continuing an agreement with the Federal government to extend the beach nourishment of the project. A new Project Cooperation Agreement was executed in July 1994 to allow Federal participation in cost sharing from 10 to 50 years based upon the Section 934 Report that was approved by ASA(CW) in February 1992.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $79,500,000 is an increase of $4,100,000 from the latest estimate ($75,400,000) presented to Congress (FY 2003). This change includes the following item:

Item	Amount
Price Level and Other Estimating Adjustments	$ 4,100,000
Total	$ 4,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS for the previously authorized project was filed with CEQ on 10 September 1975. Prior to the nourishment of any segment of the project, appropriate NEPA documentation will be prepared.

OTHER INFORMATION: Initial construction began in 1978 and was completed in October 1980. The first renourishment was completed in 1987. The second overall renourishment (second renourishment south segment and third renourishment north of Atlantic) was completed in November 1995.



Division: South Atlantic

District: Jacksonville
1 February 2010

DUVAL COUNTY, FLORIDA

Duval County, FL

SAD-22

APPROPRIATION TITLE: Construction – (Replacement)

PROJECT: Herbert Hoover Dike, FL (Continuing)

LOCATION: The Herbert Hoover Dike (HHD) system, which encircles Lake Okeechobee, is located in south-central Florida. The existing embankments total about 143 miles in length with typical crest elevations rising about 25 feet above adjacent land elevations. Reach 1 extends 22 miles from the Hillsboro Canal to the St. Lucie Canal in the southeast quadrant of the dike and Reaches 2 and 3 extend from Hillsboro Canal westward to C-43 (Caloosahatchee River).

DESCRIPTION: The Major Rehabilitation Report (MRR), approved in November 2000, divided the dike into 8 Reaches and included a detailed analysis of alternatives for Reach 1, including a proposal to construct a seepage/drainage berm along the landside toe of the dike. Following input from a variety of expert sources, the Corps convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps decided to fundamentally alter its plans for strengthening the HHD. The new design concept includes toe-ditch fill, cut-off wall at the center of the dike, and seepage berm.

AUTHORIZATION: Herbert Hoover Dike is a component of the Central and Southern Florida (C&SF) Project for Flood Control and Other Purposes. The C&SF Project was authorized in the Flood Control Act of 1948, 1954, 1958, 1960, 1965 and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, the Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, 2007 and the Rivers and Harbors Act of 1930.

REMAINING BENEFIT - REMAINING COST RATIO for the project as a whole: Not available. The latest economic analysis is based on a different, less expensive design.

TOTAL BENEFIT - COST RATIO for the project as a whole: Not available. The latest economic analysis is based on a different, less expensive design.

BASIS OF BENEFIT - COST RATIO: The latest economic analysis performed is in the November 2000 MRR, which estimated that the benefit-cost ratio for the project as a whole would be 0.94 to 1 at a 6 1/8 percent discount rate, using October 2000 price levels. This is the equivalent of a benefit-cost ratio of 0.96 to 1 at a 7 percent discount rate. Since that time, in response to the views of external peer reviewers and the findings of the independent technical review panel, the Corps significantly expanded the scale of the project plan. The resulting plan would cost roughly three times as much as the plan proposed in the 2000 report.

These benefit-cost ratios do not, however, reflect the benefits of reduced risk of loss of life, which cannot be quantified in economic terms. The Corps has classified the Herbert Hoover Dike as a Dam Safety Action Class I (DSAC I). Structures in this class are critically near failure or extremely high risk under normal operations without intervention. In this case, there is a concern even at a relatively low pool level due to the limitations of current outlet structures. As an interim measure, the Corps has changed the operating regime for Lake Okeechobee to lower the probability of failure from seepage. However, it is also proceeding to repair the dike as quickly as is practical in order to further mitigate the risk.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2009)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$1,888,455,000		Levees Reach 1	25	Sep 2014
Estimated Non-Federal Cost		$ 32,414,000		Levees Reaches 2 thru 8	0	Unscheduled
Cash Contributions	0			Entire Project	0	Unscheduled
Other Costs	32,414,000					
Total Estimated Project Cost		$1,920,869,000				
Allocations to 30 September 2007		61,037,000				
Allocations for FY 2008		55,734,000				
Allocations for FY 2009		78,369,000	1/			
Recovery Act Allocation To Date		0				
Conference Allowance for FY 2010		122,819,000				
Allocations for FY 2010		122,819,000				
Allocations through FY 2010		317,959,000	17%			
Allocation Requested for FY 2011		104,800,000	23%			
Programmed Balance to Complete after FY 2011		1,099,454,000	2/			
Unprogrammed Balance to Complete after FY 2011		366,242,000				

1/ Reflects $4,300,000 reprogrammed from the Central and Southern Florida Project. $1,800,000 was for construction contract claims and $2,500,000 was used to fully fund award of the Quarry Fill Construction contract.

2/ Reflects funding for Reaches 1, 2 & 3 only

Division: South Atlantic District: Jacksonville Herbert Hoover Dike, FL

1 February 2010

SAD-24

PHYSICAL DATA

Levees – Miles – Reach 1	22.4
Levees – Miles – Reaches 2-3	27.1
Levees – Miles – Reaches 4-8	85.3

JUSTIFICATION: The work on Reach 1 involves the construction of a cutoff wall, landside construction features such as partial seepage berms, relief wells, relief trenches and structural solutions for removing or replacing existing culverts and other penetrations through HHD. Currently, the probability of catastrophic dike failure due to piping is unacceptably high. Such an event would produce flooding, which could (depending on its location) lead to the loss of life and/or significant economic damage. The Corps is proceeding first with work on the reaches where the potential risk is the greatest. Any such failure would also adversely affect the ecosystem of Lake Okeechobee (directly) and the estuaries of the Indian River Lagoon and the Caloosahatchee River (indirectly). It would also reduce the ability to store water in the lake for release in dry years for consumptive uses and to benefit the ecosystem of the Everglades.

FISCAL YEAR 2010: Fiscal Year 2010 funds will be used to award additional contracts while continuing construction and installation of cut-off wall in Reach 1 A and D and award cut off wall task orders in Reaches 1 B and C, and toe ditch fill in focus areas 1 and 6 located in Reach 1 D. FY 2010 efforts include ongoing design (including plans and specifications) of Reach 1 landside design features and structural solutions for existing culvert structures. Construction acquisition strategies will be developed for future cut-off wall in Reaches 2 and 3, as well as Reach 1 land side design work scheduled to begin in FY 2011. Associated NEPA (Supplemental Environmental Impact Statements (SEIS)) for Reaches 1 A, B, C and D; and Reaches 2 and 3 will be completed using FY 2010 funds. Work will continue on the Major Rehabilitation Report (MRR) for Reaches 2, and 3 with scheduled completion and approval expected by September 2010.

FISCAL YEAR 2011: The requested amount of $104,800,000 will be applied to continue work as follows:

Initiate Construction of the Landside Rehab Reach 1A	$ 35,085,000
Initiate Construction of the Cut-off Wall Reach 3 Contract 1	17,891,000
Initiate Construction of the Cut-off Wall Reach 3 Contract 2	17,891,000
Initiate Construction of the Cut-off Wall Reach 2 Contract 1	846,000
Continue Construction of Cut-off Wall Reach 1C Contract 7	13,127,000
Planning, Engineering and Design	8,933,000
Engineering During Construction	4,994,000
Construction Management	6,033,000
Total	$ 104,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the original, 1930's-era authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights of way	$32,414,000	
Total Non-Federal Costs	$32,414,000	

STATUS OF LOCAL COOPERATION: A Partnership Agreement (PA) is not required for the Herbert Hoover Dike Project. There are resolutions through which the sponsor, South Florida Water Management District (SFWMD), commits to items of local cooperation. This consists of Resolutions 12 (1948) and 398 (1949). The repairs to the Herbert Hoover Dike are being 100% federally funded. Any additional real estate or easements required for the repairs are the responsibility of the local sponsor.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $1,888,455,000 is an increase of $928,855,000 from the latest estimate ($959,600,000) submitted to Congress (FY2010).

Item	Amount
Price Escalation on Construction Features	$148,114,000
Updated Cost Estimate for Construction of Cut-Off Wall and Landside Rehabilitation	625,955,000
Updated Cost Estimate for Design and Engineering During Construction	118,060,000
Updated Cost for Construction Management	36,726,000
Total	$928,855,000

The FY 2009 Federal cost estimate was based on the rough cost estimate developed for the 2000 Major Rehabilitation Report (MRR), escalated yearly. Since the 2000 MRR, additional detailed information has been compiled and developed regarding the cut-off wall and the landside rehabilitation features. In 2008 and 2009 the project schedule, activities and cost were reviewed and overhauled based on award of the 11 miles of cut-off all, utilizing four contractors. The actual cost of construction was used as a basis to update the remaining costs associated with the project.

COMPARISON OF FEDERAL COST ESTIMATES CONT: The land side rehabilitation features of relief wells, relief trenches and seepage berm have also been developed and refined since the 2000 MRR and reviewed by the agency technical review team. These features will be prominent in Reaches 1, 2 and 3 with a lesser extent in Reaches 4-8. In March/April 2009 rough costs were developed both by Corps in-house and by Architectural-Engineer firms for Reach 1 for the geotechnical solutions for these land side rehabilitation features. These estimates were reviewed by the Agency Technical Review team and were extrapolated through the balance of Reaches 1, 2 and 3.

The project schedule is based on maximum capability and the assumption that the majority of rehabilitation will be in Reaches 1, 2 and 3 while costing out rehabilitation for all 8 reaches. The project is scheduled with the last rehabilitation construction contract in Reach 8 being awarded in FY 2021. The subsequent project estimate increased due to substantial cost information based on actual construction and more definitive land side rehabilitation cost estimates. The rehabilitation will be analyzed for risk and risk reduction and there may come a point in time where the risk is decreased to a point that rehabilitation features will either no longer be needed or reduced below the costs of rehabilitation.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The draft EIS for the project was completed December 1998. A Supplemental EIS was prepared and completed in January 2005 and the Record of Decision was signed in September 2005. A Supplemental EIS for Reach 1A design is scheduled to be completed in September 2010 followed by SEIS for Reaches 1 B, C and D to be completed in December 2010. A Supplemental EIS for Reaches 2 and 3 is scheduled to be completed in December 2010.

OTHER INFORMATION: Funding for the major rehabilitation were appropriated in FY 2002. All funding prior to FY 2002 was appropriated through dam safety.

A value engineering (VE) study was done on design for Reach 1 described in the 2000 MRR. The VE recommendation was a modified plan of the recommended plan in the MRR. Subsequently, a Detailed Design Report (DDR) analyzed the VE plan and determined that it permitted too much seepage flow through the section and impacted local flood control. Following input from a variety of expert sources, the Corps convened an independent technical review panel to further evaluate the design of the proposed repairs, which were underway. After reviewing the findings of this panel, the Corps decided to fundamentally alter its plans for strengthening the HHD. The most recent approved MCASES is contained in the 2000 MRR. Major rehabilitation reports will be prepared for other reaches of the dike. Preliminary analyses indicate that construction of a cut-off wall in conjunction with landside repairs will be required in the 27-mile stretch of Reaches 2 and 3, which when complete would increase reliability of Reaches 1, 2, and 3 to authorized levels of protection.

The Herbert Hoover Dike Project is a multi-purpose project authorized for flood control, water supply, and navigation. The Comprehensive Everglades Restoration Plan (CERP) assumed the dike was fully functional. A fully functional dike will support the authorized ecosystem restoration benefits of the CERP. The current effort to strengthen the dike, when completed, will allow the Corps to hold more water safely in the lake. This will enable the Corps to release excess water to the estuaries of the Indian River Lagoon and the Caloosahatchee River in a more controlled, less damaging, fashion. In the long-term, it will also enable the Corps to release more water during dry periods to benefit the ecosystem of the Everglades.

SUMMARIZED FINANCIAL DATA: HHD REACH 1

Estimated Federal Cost		$737,938,000
Estimated Non-Federal Cost		$ 32,419,000
Cash Contributions	0	
Other Costs	32,419,000	
Total Estimated Project Cost		$770,357,000

SUMMARIZED FINANCIAL DATA: HHD REACH 2 & 3

Estimated Federal Cost		$784,275,000
Estimated Non-Federal Cost		$ 0
Cash Contributions	0	
Other Costs	0	
Total Estimated Project Cost		$784,275,000

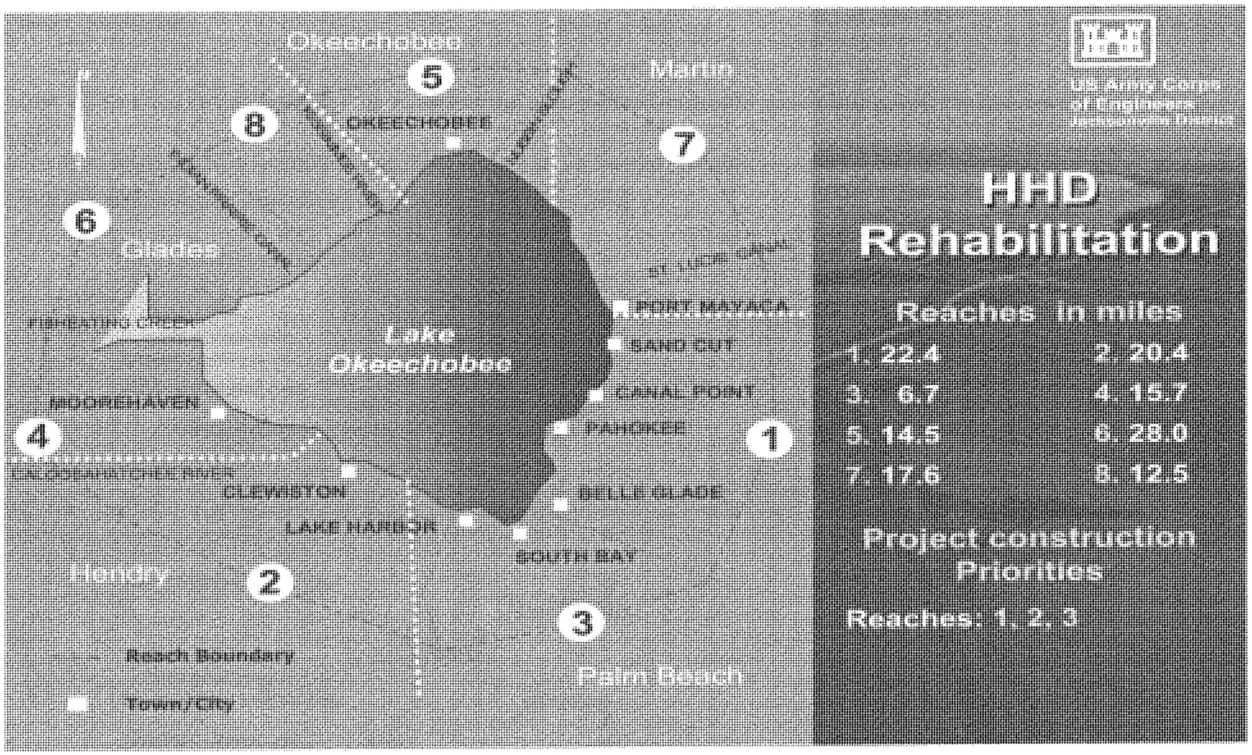
Cost is estimated based upon current design and construction changes for Reach 1.

REMAINING BENEFIT-REMAINING COST RATIO (Reaches 1, 2 & 3): Not available. The latest economic analysis is based on a different, less expensive design.

TOTAL BENEFIT-COST RATIO (Reaches 1, 2 & 3): Not available. The latest economic analysis is based on a different, less expensive design.

Division: South Atlantic District: Jacksonville Herbert Hoover Dike, FL

1 February 2010



US Army Corps
of Engineers
Jacksonville District

HHD
Rehabilitation

Reaches in miles

1. 22.4	2. 20.4
3. 6.7	4. 15.7
5. 14.5	6. 28.0
7. 17.6	8. 12.5

Project construction
Priorities

Reaches: 1, 2, 3

Division: South Atlantic District: Jacksonville Herbert Hoover Dike, FL

1 February 2010

S/ 9

APPROPRIATION TITLE: Construction – Shore Protect (Flood Risk Management)

PROJECT: Manatee County, Florida (Continuing)

LOCATION: The project is located along the west central coast of Florida, immediately south of the entrance to Tampa Bay.

DESCRIPTION: The plan of improvement provides for the placement of fill to form a protective and recreational beach for about 4.7 miles of shore along the Gulf shore of Anna Maria Key, together with periodic nourishment of the entire 7.5 miles of shorefront as needed and justified. The project provides a minimum 75-foot berm at an elevation of 5 feet above the national geodetic vertical datum. Offshore slopes would be about 1-on-11 from the berm crest to mean low water, then 1-on-27 to existing bottom. Initial construction was completed in March 1993. The sponsor completed a Limited Reevaluation Report (LRR) and plans and specifications for the first renourishment in November 2000. The sponsor completed renourishment of the project under the authority of Section 206 of WRDA 92 in May 2002. All work is programmed.

AUTHORIZATION: Section 201 of the Flood Control Act of 1965, Section 206 of WRDA 92.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: 13.1 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 2.8 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation included in the General Design Memorandum (GDM) approved February 1991 at May 1989 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$ 42,100,000	
Initial Construction		$ 5,178,000		
Periodic Nourishment		36,922,000		
Estimated Non-Federal Cost			$ 35,200,000	
Initial Construction		4,025,000		
Cash Contribution	$ 3,978,000			
Other Costs	47,000			
Periodic Nourishment		31,175,000		
Cash Contributions	31,075,000			
Other Costs	100,000			
Total Estimated Project Cost			$ 77,300,000	
Initial Construction		9,203,000		
Periodic Nourishment		68,097,000		
Allocations to 30 September 2007			$ 5,543,000	
Allocation for FY 2008			1,737,000	
Allocation for FY 2009			0	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			100,000	
Allocation for FY 2010			100,000	
Allocations through FY 2010			7,380,000	
Allocation Requested for FY 2011			100,000	
Programmed Balance to Complete after FY 2011			34,620,000	
Un-programmed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	Mar 1993
Periodic Nourishments 1-5	20	TBD
Entire Project	23	TBD

Division: South Atlantic
1

District: Jacksonville
February 2010

Manatee County, FL

SA

JUSTIFICATION: The primary purpose of the Manatee County shore protection project is to mitigate physical damages from storms affecting the project shorefront at Anna Maria Key. The project provides protection to over $66 million in private and commercial upland development, as well as infrastructure such as roads and utilities. Two of the evacuation routes from the island to the mainland would be protected by the project. Physical loss of land would be prevented, and the value of the land enhanced by project construction. Incidental recreation benefits would be generated by increased recreational usage of the project beach. The project increased usable nesting beach for the endangered and threatened turtle species from 5.1 to 35 acres. The project protected upland development from damage immediately following construction in March 1993 when the "storm of the century" impacted the project area. Average annual benefits are:

Annual Benefits	Amount
Storm Damage Reduction	$ 3,938,500
Prevention of Land Loss	96,600
Recreation	321,000
Total	$ 4,356,100

FISCAL YEAR 2010: Fiscal Year 2010 funding will be used for environment monitoring activities.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Environmental Monitoring	$ 100,000
Total	$ 100,000

NON-FEDERAL COST: In accordance with the cost share and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	$ 47,000	
Pay 45.71 percent of the costs associated with the initial nourishment of the project	3,978,000	
Pay 45.71 percent of the costs associated with the periodic renourishment of the project	31,175,000	
Total Non-Federal Costs	$ 35,200,000	

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

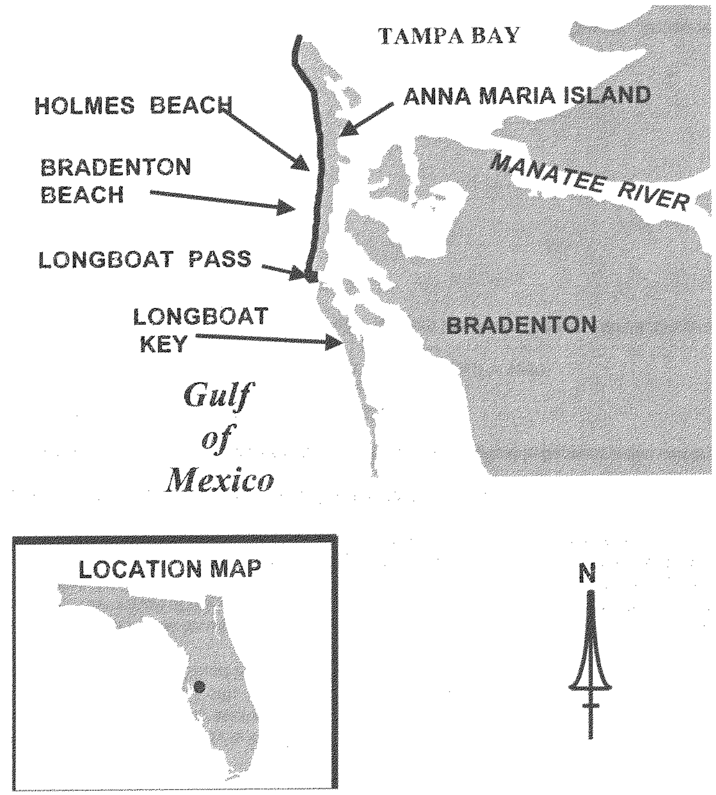
STATUS OF LOCAL COOPERATION: The Manatee County Board of County Commissioners is the local sponsor. A Project Cooperation Agreement (PCA) reflecting the cost sharing requirements of the Water Resources Development Act of 1986 was executed in August 1992. In December 1997, the ASA(CW) approved the use of Section 206 (of WRDA 1992) authority for Manatee County to conduct Engineering and Design (E&D) activities for the first periodic renourishment. An amendment to the existing PCA to allow use of Section 206 authority was executed in September 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $42,100,000 reflects a decrease of $2,300,000 from the latest estimate ($44,400,000) presented to Congress (FY 2010).

Item	Amount
Price Level and Other Estimating Adjustments	-2,300,000
Total	-2,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was prepared in August 1973 and a first supplement to the final EIS was filed with EPA in June 1979. A Final Supplement 2 to the Final Environmental Impact Statement was filed with EPA in November 1991. An EA was prepared to accompany the LRR prepared by the sponsor for the first renourishment in 2001.

OTHER INFORMATION: The local sponsor conducted the E&D and awarded the renourishment contract for Anna Maria Island in December 2001 and completed renourishment in May 2002.



MANATEE COUNTY, FLORIDA

Division: South Atlantic
1

District: Jacksonville
February 2010

Manatee County, FL

SAD-34

APPROPRIATION TITLE: Construction – Local Protection Project (Flood Risk Management)

PROJECT: Martin County, Florida (Continuing)

LOCATION: Martin County is located about 100 miles north of Miami on the east coast of Florida due east of Lake Okeechobee. The Martin County Atlantic coastline is located in the southeastern section of Florida with the Indian River Lagoon to the West, the Atlantic Ocean to the East, St. Lucie Inlet to the South, and St. Lucie County to the North. The renourishment project itself is located on Hutchinson Island, which stretches from the St. Lucie/Martin County line to the southern boundary of Stuart Public Beach Park.

DESCRIPTION: The recommended plan of improvement for Martin County provides for restoration of a protective beach along 3.75 miles of shoreline. The plan includes restoration of the primary dune to an elevation of 12.5 feet above mean sea level with a top width of 20 feet, and a 35-foot wide protective berm constructed to elevation of 8.0 feet above mean sea level. Initial project construction was completed in April 1996. The first renourishment was completed April 2003, involving the southern half of the project only. The second renourishment was completed April 2005, in response to hurricane damages to the beach. The third renourishment is scheduled to occur in FY 2011 pending availability of funds.

AUTHORIZATION: Water Resources Development Act of 1990.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: 4.0 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 5.0 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Benefits are from the Martin County, Florida, General Design Memorandum dated December 1993 (revised June 1994) at December 1993 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$26,200,000	
Initial Construction		5,422,000		
Periodic Nourishment		20,778,000		
Estimated Non-Federal Cost			$29,900,000	
Initial Construction		6,217,000		
Cash Contribution	6,190,000			
Other Costs	27,000			
Periodic Nourishment		23,683,000		
Cash Contributions	23,683,000			
Other Costs	0			
Total Estimated Project Cost			$56,100,000	
Initial Construction		11,639,000		
Periodic Nourishment		44,461,000		
Allocations to 30 September 2007			$12,302,385	
Allocation for FY 2008			0	
Allocation for FY 2009			0	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			331,000	
Allocation for FY 2010			331,000	
Allocations through FY 2010			12,633,385	48%
Allocation Requested for FY 2011			8,000,000	79%
Programmed Balance to Complete after FY 2011			5,566,615	
Un-programmed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	Apr 1996
Periodic Nourishment 1	100	Apr 2003
Periodic Nourishment 2	100	Apr 2005
Remaining Nourishments 3-5	0	TBD

Division: South Atlantic

District: Jacksonville

1 February 2010

Martin County, FL

PHYSICAL DATA

Initial Beach Fill	1,297,500	Cubic yards
Future Periodic Nourishment	589,600	Cubic yards every 11 years

JUSTIFICATION: Martin County is a rapidly developing region of southern Florida, which has experienced significant population growth since 2000 and is expected to continue to grow. Economic development depends heavily upon tourism and other major industries, including aerospace, plastics and agriculture. The majority of the development on Hutchinson Island within the previous 10 years consists of multi-unit residential structures. The annual storm damage prevention benefits, based on current shorefront development, are estimated to be $4.972 million. Average annual benefits for the recommended plan are as follows:

Annual Benefits	Amount
Storm Damage Prevention	$4,972,000
Recreation Benefits	702,000
Total	$5,674,000

FISCAL YEAR 2010: Previously appropriated funds will be used to complete plans and specifications and prepare for contract advertisement of the next nourishment contract.

FISCAL YEAR 2011: The requested funds will be applied as follows:

Award Periodic Nourishment Contract	$6,650,000
Planning, Engineering, and Design	630,000
Supervision and Administration	720,000
Total	$8,000,000

NON-FEDERAL COST: The non-Federal cost-sharing reflected in the Martin County, Florida, General Design Memorandum dated December 1993 (revised June 1994), and the PCA is 53.41%.

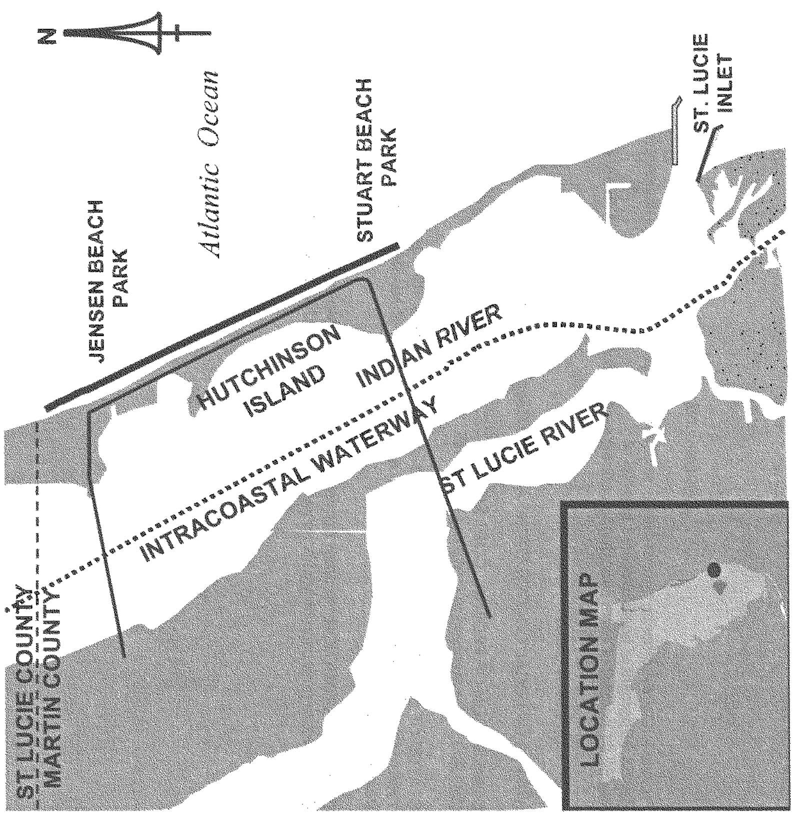
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, relocations, and dredged material disposal sites	$ 27,000	
Pay 53.41 percent of costs allocated to initial fill	6,190,000	
Pay 53.41 percent of costs allocated to periodic renourishment of the project shoreline	23,683,000	
Total Non-Federal Costs	$29,900,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed in August 1995.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $29,900,000 is unchanged from the previous estimate ($29,900,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final EIS was prepared and included in the Feasibility Report dated September 1985 (revised June 1986). An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) are included in the General Design Memorandum dated December 1993 (revised June 1994).

OTHER INFORMATION: In order to minimize environmental impacts to sea turtle nesting during construction activities, periodic renourishment of the Martin County shore protection project is scheduled to occur between November 1st and April 30th.



MARTIN COUNTY, FLORIDA

Martin County, FL

Division: South Atlantic

District: Jacksonville

1 February 2010

5/ 6

APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Portugues and Bucana Rivers, Puerto Rico (Continuing)

LOCATION: The project is located in the vicinity of Ponce, Puerto Rico, on the south coast.

DESCRIPTION: The Standard Project Flood (SPF) flood protection project involves construction of 9.1 miles of channel improvements, two multi-purpose dams with uncontrolled emergency spillways, a dependable water supply for the Ponce area, and recreational facilities on the lakes and channels. The Cerrillos Dam is located on the Cerrillos (Upper Bucana) River 9.5 miles above its mouth. The Cerrillos Dam is 323 feet high and its reservoir will provide 47,900 acre-feet of flood control and water supply storage. The estimated water supply yield of Cerrillos is 22 m.g.d. The Portugués Dam flood control structure will be located on the Portugués River 8.3 miles above its mouth. The Portugués Roller Compacted Concrete (RCC) Dam will be 219 feet high. The final reservoir will provide a total storage of 12,325 acre-feet. The Portugues Dam will be awarded as one contract with five phases of construction. Phase 1 will include mobilization, clearing and grubbing, quarry overburden excavation, and powerline relocation. Phase 2 will include foundation excavation, aggregate production and dental concrete. Phase 3 will include aggregate production, placement of one half of the Roller Compacted Concrete (RCC). Phase 4 will include final RCC placement, spillway and intake structure. Phase 5 will include the valve house, access road and all mechanical and electrical items for valve house.

AUTHORIZATION: Flood Control Act of 1970 and Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 2.2 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 2.5 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 5-5/8 percent (FY1974).

BASIS OF BENEFIT - COST RATIO: Benefits are from the July 1973 Design Memorandum Phase 1, Plan Formulation and Site Selection Report at July 1973 prices levels except for Portugues Dam where benefits are from the Post Authorization change report dated April 2004.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Total Appropriation Requirement			$ 616,600,000	
Future Non-Federal Reimbursement			213,974,000	
Estimated Federal Cost (Ultimate)			402,626,000	
Estimated Non-Federal Cost			389,974,000	
Cash Contributions		71,447,000		
Other Costs		104,553,000		
Reimbursements		213,974,000		
Water Supply	213,974,000			
Total Estimated Project Cost			$ 792,600,000	
Allocations to 30 September 2007			$ 419,955,000	
Allocation for FY 2008			31,727,000	
Allocation for FY 2009			40,987,000	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			39,680,000	
Allocation for FY 2010			39,680,000	
Allocations through FY 2010			532,349,000	86%
Allocation Requested for FY 2011			39,538,998	93%
Programmed Balance to Complete After FY 2011			$ 44,712,002	
Unprogrammed Balance to Complete After FY 2011			0	

STATUS (1 Jan 2010)	PERCENT COMP	PHYSICAL COMPLETION SCHEDULE
Channels and Canals		
Lower Channels	100	Aug 1978
Upper Bucana Channel	100	Jun 1983
Upper Portugues Channel	100	Jun 1994
Bucana River Debris Basin	100	Jun 1987
Portugues Debris Basin	100	Mar 1987
Dams		
Cerrillos	100	Sep 1994
Portugues (Flood Control)	30	TBD
Recreation		
Channels	60	TBD
Cerrillos	100	Sep 2008
Portuguese	0	TBD
Entire Project	89	TBD

Division: South Atlantic District: Jacksonville Portugues and Bucana Rivers, PR

1 February 2010

FISCAL YEAR 2010: Fiscal Year 2010 funds will be used to continue with aggregate production and construction of the first phase of the roller compacted concrete dam and associated engineering during construction and construction management.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue Portugues Dam Construction Contract	$34,000,000
Engineering During Construction	1,900,000
Construction Management	3,638,998
Total	$39,538,998

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Flood Control Act of 1970 and the Water Resources Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, and Replacement Costs
Provide lands, easements, and rights-of-way.	$83,165,000	
Modify or relocate buildings, utilities, roads, bridges, and other facilities, where necessary in the construction of the project.	21,388,000	
Pay additional cash required to bring the total Non-Federal share of the flood control costs to 25 percent and bear all costs of operation, maintenance, and replacement of flood control facilities.	55,705,000	$249,900
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	15,742,000	258,300
Reimbursement for water supply on Cerrillos Dam	213,974,000	
Total Non-Federal Costs	$389,974,000	$508,200

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. The following contract agreements are required pursuant to Section 221 of the River and Harbor and Flood Control Act of 1970 and the Water Resources Development Act of 1986:

Contract	Actual or Anticipated Execution Date
Section 221 – Cerrillos Reservoir	15 Mar 1982
Channels	22 Jul 1974
Water Supply – Cerrillos Reservoir	15 Mar 1982
Recreation – Cerrillos Reservoir	15 Mar 1982
Channels	24 Jun 1987
Project Cooperation Agreement – Portugues Reservoir	9 Aug 1993

Portugues Dam is a roller compacted concrete dam. The dam is designed as a multi-purpose dam to be constructed in two phases. The Commonwealth of Puerto Rico has requested that the dam be constructed as soon as possible for flood control and recreation, but to defer the water supply feature to a later date. By letter dated May 2003, the Commonwealth restated their commitment to the full and complete multi-purpose Portugues Dam, and agreed to pay the additional costs required for the phased construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimates of $616,600,000 is unchanged from the previous estimate ($616,600,000) last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with CEQ (Council on Environmental Quality) on 25 February 1974. A Supplemental EIS for the Portugues Dam was submitted in November 1992.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in Fiscal Year 1972. Funds to initiate construction were appropriated in Fiscal Year 1975.

SUMMARIZED FINANCIAL DATA FOR PROGRAMMED SEPARABLE ELEMENTS

Channels and Canals

Estimated Federal Cost		$116,901,000
Estimated Non-Federal Cost		62,112,000
Cash Contribution	3,731,000	
Other Costs	58,381,000	
Total Estimated Project Cost		$179,013,000

REMAINING BENEFIT - COST RATIO: Not applicable because construction is substantially complete.

Cerrillos Dam

Estimated Total Appropriation Requirement		$232,799,000
Future Non-Federal Reimbursement (Water Supply)		213,974,000
Estimated Federal Cost Ultimate		18,825,000
Estimated Non-Federal Cost Ultimate		247,562,000
Cash Contributions	9,708,000	
Other Costs	23,880,000	
Reimbursement:		
Water Supply	213,974,000	
Total Estimated Project Cost		$266,387,000

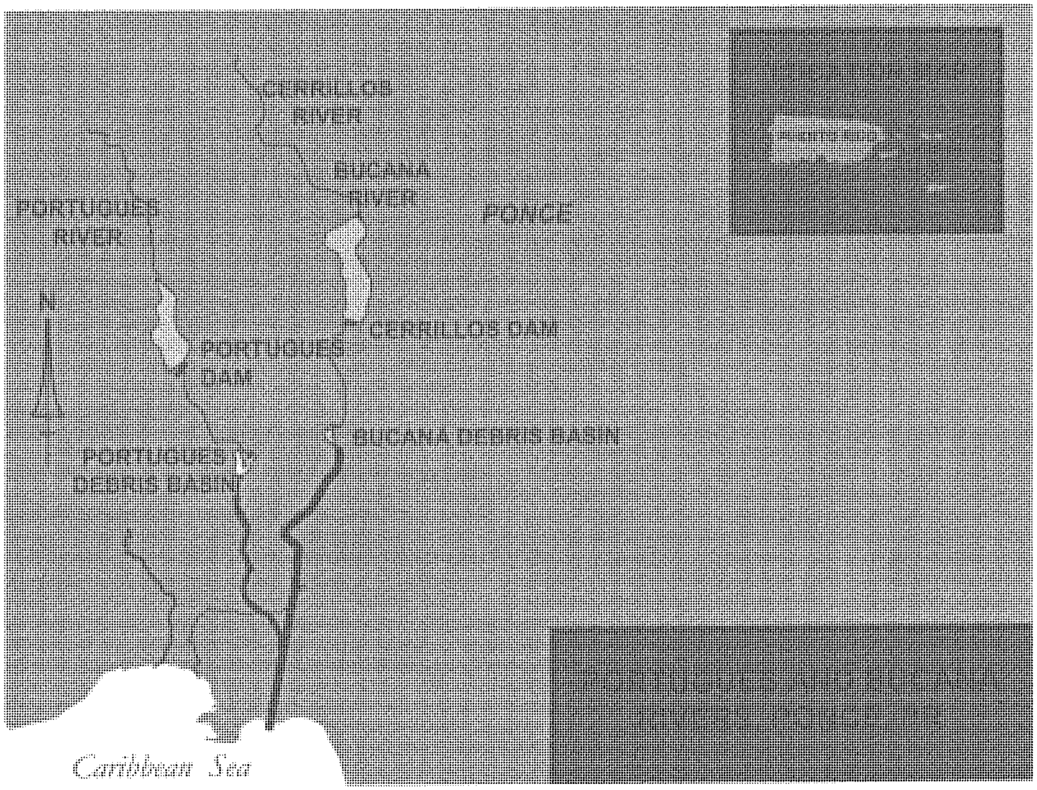
REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because construction is substantially complete.

Portugues Dam

Estimated Federal Cost		$266,900,000
Estimated Non-Federal Cost		80,300,000
Cash Contribution	58,449,000	
Other Costs	21,851,000	
Total Estimated Project Cost		$347,200,000

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7 percent.



Division: South Atlantic

District: Jacksonville

1 February 2010

Portugues and Bucana Rivers, PR

SAD-47

APPROPRIATION TITLE: Construction - Local Protection Project (Flood Risk Management)

PROJECT: Rio Puerto Nuevo, Puerto Rico (Continuing)

LOCATION: The Rio Puerto Nuevo drainage basin is located within the San Juan Metropolitan Area along the northern coast of Puerto Rico. The basin joins the southeast side of San Juan Harbor and extends south and up into the foothills of the central mountains of Puerto Rico. The Rio Piedras, Rio Puerto Nuevo, Quebrada Margarita, Quebrada Josefina, Quebrada Dona Ana, Quebrada Buena Vista, and Quebrada Guaracanal traverse the basin. The Río Puerto Nuevo Basin drains 24 square miles, 75 percent of which is highly developed with a population of 250,000 persons.

DESCRIPTION: The plan of improvement protects against the 100-year flood by the construction in the Puerto Nuevo River and its tributaries of 1.7 miles of earth lined channel, 9.5 miles of concrete lined channels (of which 5.1 miles are high velocity) and two debris basins. The plan will also require the construction of five new bridges, the replacement of 17 bridges, and the modification of eight existing bridges.

AUTHORIZATION: Water Resources Development Act of 1986

REMAINING BENEFIT - REMAINING COST RATIO: 5.1 to 1 at 7 percent

TOTAL BENEFIT - COST RATIO: 3.8 to 1 at 7 percent

INITIAL BENEFIT - COST RATIO: 4.5 to 1 at 8 percent (FY1994)

BASIS OF BENEFIT - COST RATIO: Benefits are from the economic analyses performed for the revised General Design Memorandum dated June 1991 at October 1989 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 372,400,000	
Estimated Non-Federal Cost		$ 147,900,000	
Cash Contributions	64,138,000		
Other Costs	83,762,000		
Total Estimated Project Costs		$ 520,300,000	
Allocations to 30 September 2007		$ 173,917,000	
Allocation for FY 2008		10,724,000	
Allocation for FY 2009		11,171,000	
Recovery Act Allocation To Date		1,253,800	
Conference Allowance for FY 2010		4,239,000	
Allocation for FY 2010		4,239,000	
Allocations through FY 2010		201,304,800	54%
Allocation Requested for 2011		12,000,000	57%
Programmed Balance to Complete after FY 2011		159,095,200	
Unprogrammed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Relocations	40	TBD
Roads, Railroads, Bridges	48	TBD
Channels and Canals	57	TBD
Recreation	0	TBD
Entire Project	53	TBD

PHYSICAL DATA	
Relocations - Bridges (Replacement)	17
Relocations - Bridges (Modification)	8
Relocations - Bridges (Construction)	5
Canals - Miles	11.2
Debris Basins	2
Stilling Areas	2

Division: South Atlantic

District: Jacksonville
1 February 2010

Rio Puerto Nuevo, PR

SAD-49

PHYSICAL DATA

	Portugues	Cerrillos
Dam		
Type	Roller Compacted Concrete	Earth and rock-fill
Height	220 feet	323 feet
Crest Length	1,317 feet	1,555 feet
Spillway Type	Ungated concrete 150 feet wide	Ungated rock cut 400 feet wide
Reservoir Capacity (Acre-Feet)		
Flood Control	9,484	17,065
Water Supply	12,858	25,200
Sediment	2,841	5,635
Total (Acre-Feet)	25,183	47,900
Portugues River Channel Enlargement		2.1 miles
Bucana River Channel Enlargement		5.7 miles
Diversion Channel Connecting Portugues River to the Lower Bucana River		1.3 miles

JUSTIFICATION: The completed components of the project (lower channels of Cerrillos Dam) provided over 100 year flood event level of protection to the eastern urban side of the city but less than 25 years to the city's main residential, commercial, public and industrial areas. Only with completion of the Portugues Dam will these areas receive the SPF level of protection as designed and authorized. There are over 15,000 families and several billion dollars worth of property subject to flooding because the dam, which was designed as an integrated system, has not been completed thereby exacerbating flood risk for some areas. This component is an integral part of the entire Portugues and Bucana project, and without it, the lower channels will not perform effectively. Close to $10 million has been expended during the last 10 years to repair the lower channels and lower area due to high velocities and erosion from flood waters that are designed to be held back by the Portugues Dam. The additional investment of about $164.6 million (Federal) to complete the Portugues Dam is holding back, to a large extent, the beneficial economic development impact of the already invested $422.1 million (Federal) in the completed components. The construction of the Portugues Dam will provide annual benefits of over $25 million in avoided flood damages. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (flash flooding and thus short warning time) and cultural factors (few available routes of egress from the flood plain.) Average annual benefits for the total project are as follows:

Annual Benefits	Amount
Flood Control	$43,387,000
Water Supply	13,968,000
Recreation	2,418,000
Area Redevelopment	1,116,000
Total	$60,889,000

JUSTIFICATION: The Rio Puerto Nuevo flows thru the middle of the San Juan Metropolitan area. The intense development in the basin has altered the natural discharge patterns, significantly increased the runoff rates and restricted the flows in the floodplain. In very short time, discharges reach over 30,000 cfs with stages of over 4 ft and velocities approaching 12 – 15 ft per second. There are over 250,000 people living in the 25 square mile drainage basin and over a quarter of a million people commute every day to work, study and visit the area. The area is 100% developed. About 125,000 persons are directly or indirectly affected by the 100-year flood. Property subject to flooding includes over 8,000 housing structures, several hospitals, police stations, dozens of schools and higher education colleges, San Juan Harbor ports facilities, electric power plants, wastewater treatment plant, main highways and bridges, the financial district and several regional shopping centers valued at over $10 billion. Overflow of Rio Puerto Nuevo, even from very small floods resulting from frequent rainfalls of 2 inches or more in a few hours, bring the San Juan area to a stand still situation for hours several times per year. This results in millions of dollars of damages. San Juan is always part of Presidential Disaster Declarations for Puerto Rico associated with floods. There have been 8 of these during the last 20 years. Recently, Tropical Storm Jeanne, in 2004, resulted in FEMA expending over $350 million in damage relief over the island. Average annual inundation damage in the Rio Puerto Nuevo area is estimated at over $75 million. Over 89% of these damages will be reduced by the proposed flood control measures. This project, in addition to preventing damages to property, is effective in reducing a high risk to life for the populations in the project area. That risk must be considered in evaluating the project justification in addition to economic analyses. Risk is created by both hydrologic factors (deep and fast flood waters; critical infrastructure; possible bridge failure) and cultural factors (large population). Average annual benefits are as follows:

Annual Benefits	Amount
Flood Control	$66,750,000
Total	$66,750,000

FISCAL YEAR 2010: Fiscal Year 2010 funds will be used to continue the De Diego Bridge and the Bechara Channel contracts, engineering during construction and construction management activities for the two construction contracts.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Continue de Diego Bridge contract	$ 3,360,000
Complete Bechara Channel contract	480,000
Initiate Modifications to 90" Sewer Line	5,760,000
Planning, Engineering, and Design	800,000
Supervision and Administration	1,600,000
Total	$ 12,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below for programmed work.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-way, and dredged material disposal areas.	$ 36,611,000	0
Modify or relocate buildings, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	47,151,000	0
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, and replacement of recreation facilities.	451,000	0
Pay 12.37 percent of the first costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation, and replacement of flood control structures.	63,687,000	0
Total Non-Federal Costs	$ 147,900,000	0

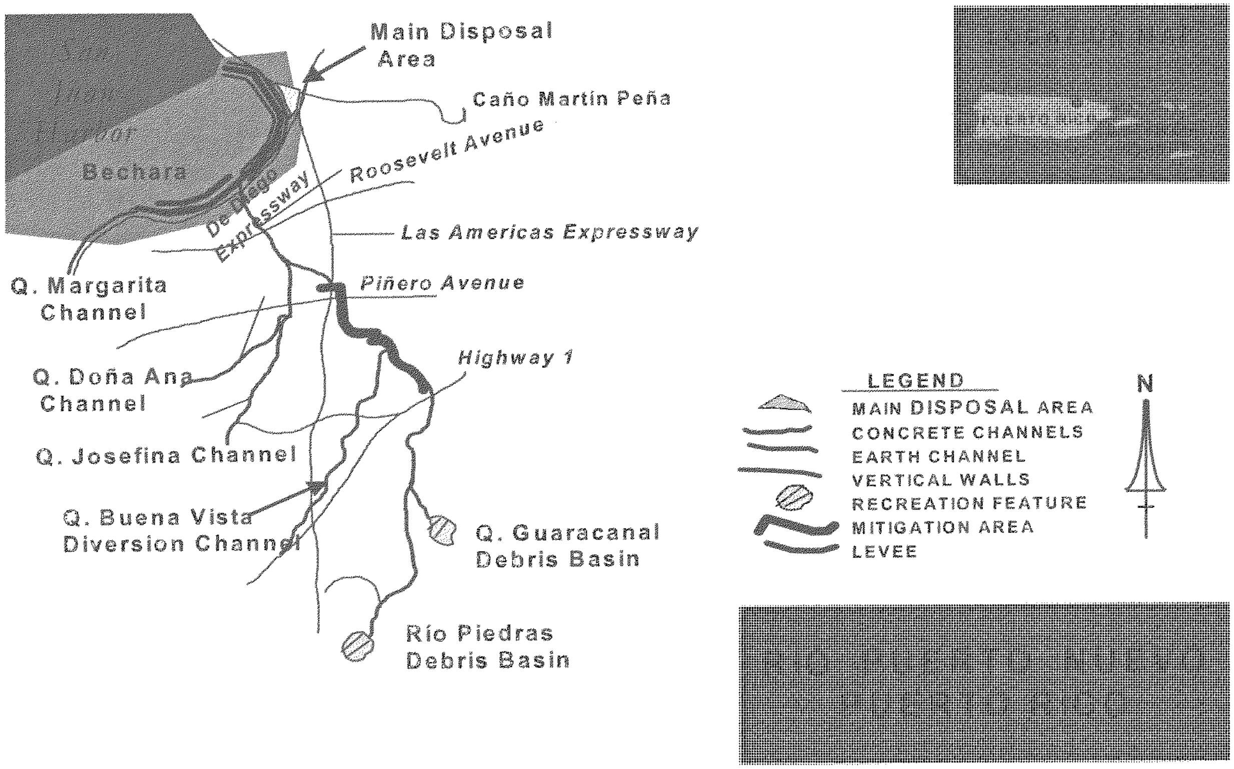
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Commonwealth of Puerto Rico Department of Natural and Environmental Resources is the local sponsor. A Project Cooperation Agreement for the project was executed in March 1994.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $372,400,000 is unchanged from the previous estimate ($372,400,000) presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Impact Statement for the project was filed on 6 December 1985. The Finding of No Significant Impact (FONSI) was approved in July 1992.

OTHER INFORMATION: Funds to initiate preconstruction, engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1994.



Division: South Atlantic

District: Jacksonville
1 February 2010

Rio Puerto Nuevo, PR

SAD-52

APPROPRIATION TITLE: Construction - Local Protection (Flood Risk Management)

PROJECT: Roanoke River Upper Basin, Virginia, Headwaters Area (Continuing)

LOCATION: The project is located on the Roanoke River in the City of Roanoke, Virginia.

DESCRIPTION: The project includes about 6.2 miles of channel widening along the 10 miles of river through the city of Roanoke, Virginia. Channel widening will be accomplished with the construction of a benched channel above the elevation of the average stream flow. Other flood risk management features include flood proofing at two locations, training walls to prevent floodwater intrusion into low areas along the river, and a flood warning system. Recreation facilities consist of a 9.5-mile recreation trail along the project reach and access and parking areas.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriations Act of 1990 and Energy and Water Development Appropriations Act of 2004.

REMAINING BENEFIT - REMAINING COST RATIO: 2.2 to 1 at 7 percent.

TOTAL BENEFIT - COST RATIO: 1.6 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 1.1 to 1 at 8-7/8 percent (FY 1990).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in January 1990 at 1988 price levels.

RISK INDEX: 150

BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$46,700,000		Entire Project	95	Sep 2013
Estimated Non-Federal Cost		$23,300,000				
Cash Contributions	8,733,000					
Other Costs	14,567,000					
Total Estimated Project Cost		$70,000,000				
Allocations to 30 September 2007		$28,722,000				
Allocation for FY 2008		9,502,000				
Allocation for FY 2009		1,029,000				
Recovery Act Allocation to Date		3,954,000				
Conference Allowance for FY 2010		1,016,000				
Allocation for FY 2010		1,016,000				
Allocations through FY 2010		44,223,000	95			
Allocation Requested for 2011		1,075,000	97			
Programmed Balance to Complete after FY 2011		1,402,000				
Unprogrammed Balance to Complete after FY 2011		0				

PHYSICAL DATA

Project Features:		Relocations:	
Channel Excavation	27,000 linear feet	Utility	3,880 linear feet
Training Wall	6,300 linear feet	Roads	2,000 linear feet
Paved Recreation Trail	50,160 linear feet	Overhead Line	6,350 linear feet
Parking/Access Areas	3 each	Buildings	13 each
Riprap	28,000 tons		

Division: South Atlantic District: Wilmington Roanoke River Upper Basin, VA, Headwaters Area

1 February 2010

PHYSICAL DATA - Continued

Land Acquisition (acres):

Total Rights of Way Requirement	195
Flood Control Rights of Way	185
Disposal Areas (Temporary)	40
Recreation Rights of Way (Separable)	20
Right of Way Underwater	110

JUSTIFICATION: The project provides improvements for flood risk management and recreation. Most of the property that would receive flood damage reduction serve industrial and commercial uses with a value of $680,000,000. The average annual damages in the project area are estimated at $5,777,000 at October 1988 price levels and 1988 level of development over the next 50 years if no flood risk management facilities were provided. The project would reduce these damages by $2,374,000. The maximum flood of record, November 1985, caused damages estimated at $112,424,000 under 1985 conditions of development and price levels. Damages at 1988 levels of development and October 1988 price levels would be $119,997,000. Floodplain development is not promoted by the project. Return on investments by local businesses is adversely affected by the flooding problem. Industrial and commercial property owners have to use their resources to repair and attempt flood proofing that could be used for expansion and modernization. In this respect, return on investment is suppressed. The project has a beneficial effect on a variety of businesses and increases return on investment throughout the flood plain. Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Reduction	$3,403,000
Recreation	1,230,000
Total	$4,633,000

FISCAL YEAR 2010: The allocated amount of $1,016,000 will be used to continue monitoring of endangered species, planning, engineering and design and construction management.

FISCAL YEAR 2011: The requested amount of $1,075,000 will be applied as follows:

Continue Monitoring of Endangered Species	$ 300,000
Planning, Engineering and Design	180,000
Construction Management	595,000
Total	$1,075,000

Division: South Atlantic District: Wilmington Roanoke River Upper Basin, VA, Headwaters Area

1 February 2010

SA 5

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide all lands, easements, and rights of way including suitable spoil disposal areas	$ 7,968,000	
Modify or relocate buildings, utilities, roads and other facilities except railroad bridges, where necessary for construction of the project.	6,559,000	
Pay 25 percent of the cost of the flood warning system (partially offset by a credit for lands, easements, rights of way, and relocations).	10,000	
Pay 5 percent of the total cost allocated to flood damage reduction in cash in addition to all lands, easements, rights of way and relocations, and bear all costs of operation, maintenance, and replacement of flood damage reduction facilities.	2,215,700	$101,000
Pay one-half of the separable cost allocated to recreation (partially offset by a credit for land, easements, rights of way and relocations) and bear all costs of operation, maintenance and replacement of recreation facilities	6,180,300	9,000
Pay 25 percent of the cost of the non-structural flood proofing (partially offset by a credit for lands, easements, rights of way and relocations).	367,000	
Total Non-Federal Costs	$23,300,000	$110,000

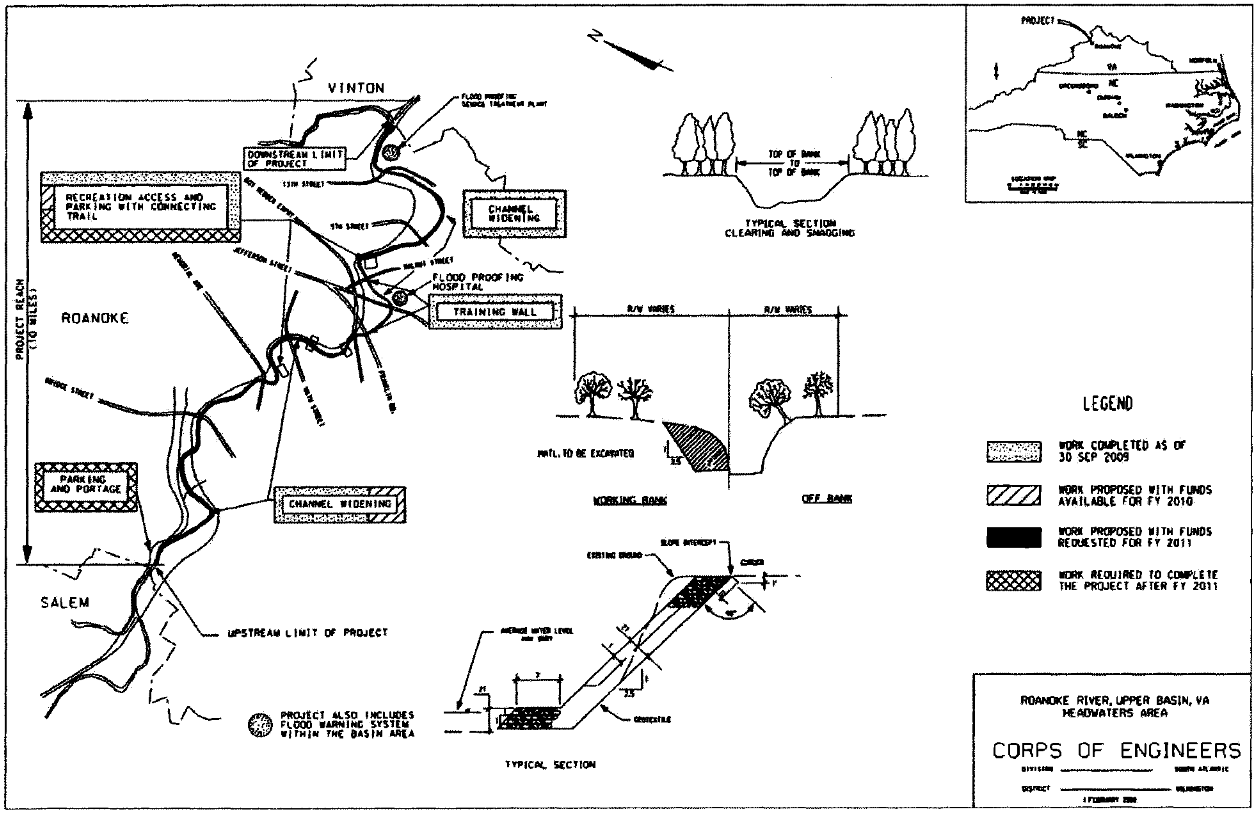
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The City of Roanoke is the project sponsor. On 11 April 1989, the voters of the city of Roanoke approved the sale of $7.5 million worth of bonds to pay Roanoke's required cash contribution, acquire lands that are not currently owned and pay for relocation of bridges and utilities. The Local Cooperation Agreement was executed on 25 June 1990. A supplement to the Local Cooperation Agreement, executed in January 1993, addressed the reimbursement for the flood proofing of the hospital. Design and construction of the project is now underway, which was deferred for eight years due to concerns the sponsor had over assuming liability for potential hazardous, toxic, and radioactive waste issues that might arise during project construction. The city in conjunction with the Corps of Engineers, Environmental Protection Agency and the Virginia Department of Environmental Quality conducted an extensive investigation and review of the project right of way to alleviate these concerns. Hazardous material was found at two sites. The landowner has cleaned these sites. Soil contamination was found at 14 other sites. A project action plan for the screening and disposal of this material has been prepared and reviewed by the sponsor and the Virginia Department of Environmental Quality.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $46,700,000 is the same as last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in February 1985. A Finding of No Significant Impact for design changes was signed on 30 June 1989.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990. The project authorization was last modified by the Energy and Water Development Appropriations Act of 2004 to increase the total estimated project cost to $61,700,000 (October 2004 price levels). The Roanoke Logperch, which is located in the project area, was listed as an endangered species effective 18 September 1989 and is being monitored during project construction. Reimbursement for the Federal share of the flood proofing of Roanoke Hospital, as authorized by Section 102(cc) of the Water Resources Development Act of 1990, in the amount of $501,000, was completed in February 1993.


VINTON
ROANOKE
SALEM
PROJECT REACH (10 MILES)
DOWNSTREAM LIMIT OF PROJECT
UPSTREAM LIMIT OF PROJECT
RECREATION ACCESS AND PARKING WITH CONNECTING TRAIL
PARKING AND PORTAGE
CHANNEL WIDENING
CHANNEL WIDENING
FLOOD PROOFING HOSPITAL
TRAINING WALL
13TH STREET
9TH STREET
JEFFERSON STREET
WALNUT STREET
BRIDGE STREET
N
PROJECT ALSO INCLUDES FLOOD WARNING SYSTEM WITHIN THE BASIN AREA
TOP OF BANK TO TOP OF BANK
TYPICAL SECTION CLEARING AND SNAGGING
R/W VARIES
R/W VARIES
MATL. TO BE EXCAVATED
WORKING BANK
OFF BANK
SLOPE INTERCEPT
EXISTING GROUND
GEOTEXTILE
TYPICAL SECTION
PROJECT
VA
NC
SC
LEGEND
▨ WORK COMPLETED AS OF 30 SEP 2009
▨ WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
■ WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
▩ WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
ROANOKE RIVER, UPPER BASIN, VA HEADWATERS AREA
CORPS OF ENGINEERS

Division: South Atlantic

District: Wilmington

Roanoke River Upper Basin, VA, Headwaters Area

1 February 2010

SAD-58

NAVIGATION

SAD-59

INVESTIGATIONS

SAD-60

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study/Project Total	Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Lake Worth Inlet, Florida Jacksonville District							
Annual Allocations	1,204,000	133,000	107,000	191,000	90,000	340,000	343,000
Recovery Act Allocations to Date				0	0		
Total Allocations	1,204,000	133,000	107,000	191,000	90,000	340,000	343,000

The project is located in Palm Beach County on the lower east coast of Florida. Palm Beach Harbor provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. Length of project is about 1.6 miles. The U.S. Coast Guard completed a study in 1998 recommending widening the interior channel. The feasibility study is investigating the deepening and widening the Federal project at Palm Beach Harbor. The local sponsor is the Port of Palm Beach.

The funds requested for Fiscal Year 2011 will be used to continue the feasibility phase of the study. The estimated cost of the entire feasibility phase is $2,200,000. FCSA amended to allow sponsor to advance their share of funds prior to the allocation of the Federal equivalent. Sponsor has contributed $428,000 to date. A summary of study cost sharing follows:

Total Estimated Study Cost	$2,304,000
Reconnaissance Phase (Federal)	104,000
Feasibility Phase (Federal)	1,100,000
Feasibility Phase (Non-Federal)	1,100,000

The reconnaissance study was completed in February 2001. Lack of funding and interest by the Sponsor delayed the execution of the FCSA. The Feasibility Phase of the study was initiated July 2007. Initial NEPA Scoping meeting held January 2008. Economic, Environmental, and Engineering efforts are all underway. The feasibility phase could be completed in FY 2012 contingent upon funding.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic Division

Study North Carolina International Terminal, North Carolina Wilmington District	Total Estimated Federal Cost	Allocation Prior to FY 2008	Allocation FY 2008	Allocation FY 2009	Allocation FY 2010	Tentative Allocation FY 2011	Additional to complete After FY 2011
	$	$	$	$	$	$	$
Annual Allocation	2,689,000	0 0		96,000	93,000	104,000	2,396,000
Recovery Act Allocations to Date				0	0		
Total Allocations	2,689,000	0	0	96,000	93,000	104,000	2,396,000

The North Carolina International Terminal (NCIT) is to be located adjacent to the Wilmington Harbor navigation channel project at River Mile 7.0 in the southeastern portion of North Carolina in Brunswick County and south of the U.S. Army Military Ocean Terminal at Sunny Point (MOTSU). The project involves the development of a navigation channel and turning basin from the Wilmington Harbor channel in the Cape Fear River to the NCIT facility. The existing depth of the navigation channel ranges from 42 to 44 feet. Growth trends in container traffic indicate demand cannot be accommodated by the supply of existing facilities in the south Atlantic Ocean region. The Wilmington Harbor facility and the current authorized navigation channel are insufficient to meet the expected future demand of container traffic. Additionally, the existing authorized channel depth limits opportunities to accommodate larger vessels and greater economies of scale. The NCIT is to be located on a 600-acre site to include construction of cargo handling facilities and related infrastructure to ultimately provide a capacity to service 3.0 million 20-foot truck equivalent units. The NC Ports Authority is aware that land-side development of road and rail infrastructure and infrastructure for the port itself would be a non-Federal responsibility and require extensive environmental assessment including permits from the Corps of Engineers. Detailed evaluation of the full array of potential alternatives would be conducted in the feasibility phase and include multiple channel depths and widths to accommodate post Panama Canal class vessels drafting 45 to 50 feet. Potential sponsor for the feasibility phase of the study is the state of North Carolina.

Fiscal Year 2010 funds are being used to continue the reconnaissance phase by completing the 905(b) analysis to determine if there is a Federal interest to be addressed and if so, develop the project management plan and the feasibility cost sharing agreement. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2011 would be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $5,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,189,000
Reconnaissance Phase (Federal)	189,000
Feasibility Phase (Federal)	2,500,000
Feasibility Phase (Non-Federal)	2,500,000

The reconnaissance phase completion date is scheduled for September 2010. The feasibility phase is scheduled to be completed in September 2016.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study	Total Estimated Prior Federal Cost	Allocation to FY 2008	Allocation FY 2008	Allocation FY 2009	Allocation FY 2010	Tentative Allocation FY 2011	Additional to complete After FY 2011
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (NAV)							
Savannah Harbor Expansion, GA Savannah District							
Annual Allocation	$10,513,700	$5,145,500	$796,000	$1,275,0 00	$1,543,200	$600,000	$1,154,000
Recovery Act Allocations to Date	$1,444,994	0	0	0	$1,444,994	0	0
Total Allocations	$11,958,694	$5,145,500	$796,000	$1,275,0 00*	$2,988,194**	$600,000	$1,154,000

* FY2009: $875,000 Construction funds and $400,000 Investigations funds

** FY2010: Allocation includes $1,444,994 ARRA funds and $1,543,200 Construction funds (no Investigation funds appropriated in FY10)

The Savannah Harbor area includes the lower 21.3 miles of the Savannah River, which is the principal boundary between the states of Georgia and South Carolina. The City of Savannah is located 15 miles from the river mouth. Savannah Harbor has been the fastest growing US container port since 1995, with an average annual growth rate (1995-2006) of 12.5%. The Harbor's Garden City Terminal is the second largest container port on the US East Cost by container volume, and the fourth largest in the nation. Savannah's share of twenty-foot equivalent units (TEUs) among the four largest US East Coast ports has grown from 13.1% in 1995 to 19.1% in 2005. Between 1987 and 2007, total TEU volume increased by more than seven fold. Loaded import TEU volume increased by more than 830% and export volume by 580%. According to the Georgia Ports Authority (GPA), over 82% of ships currently calling upon the Savannah Harbor are constrained in some way by the project's current depth.

The GPA conducted the initial Tier I feasibility study under the authority of Section 203 of the Water Resources Development Act of 1986 (WRDA 86) and was responsible for funding most associated study costs. The Feasibility Report was submitted to the Secretary of the Army in August 1998. The project was initially estimated to cost $230,174,000 (1999 price levels), with an estimated Federal cost of $145,160,000 and an estimated non-Federal cost of $85,014,000. The work includes deepening the harbor channel from -42 feet to as deep as -48 feet. The average annual benefits at the time of authorization amounted to $35.2M, all for commercial navigation. The benefit-cost ratio was calculated at 3.0 to 1 at 7-1/8 percent based on the economic analysis dated August 1998. Updated economic data, which include the benefits of an expanded Panama Canal, are now being analyzed as are updated cost estimates for dredging and mitigation. The non-federal sponsor, Georgia Department Of Transportation (GDOT), is aware of project cost sharing requirements. PED may ultimately be cost shared and will be financed through the PED period at 79 percent non-Federal and 21 percent Federal. Upon completion of construction, credit may be given to the local sponsor for the Federal share of the PED cost. Costs for the General Reevaluation Report (GRR) and Tier II Environmental Impact Statement (EIS) have increased as a result of the additional work required to develop an improved economic analysis procedure for deep draft navigation projects with extensive benefits being derived from containerized cargo and cooperating agency approval. Additional hydrodynamic modeling, mitigation alternative analyses and required agency coordination have also increased the cost of report preparation.

Fiscal Year 2010 funds are being used to complete the economics analysis, write the draft GRR and EIS, conduct ATR, Legal, HQUSACE Fatal Flaw, IEPR, Public, State and Federal Agency and OWPR reviews, resolve the comments from those reviews, and revise the report accordingly. Work will also include final chloride data collection and analysis for a refined prediction of project impacts on the City of Savannah's water withdrawal intake for the final report.

Fiscal Year 2011 funds will be used to finalize the GRR and EIS to a Record of Decision, a Project Partnership Agreement will be drafted and executed, and detailed Plans and Specifications will be drafted.

A summary of study cost sharing is as follows:

Total Estimated Preconstruction Engineering and Design Costs	$43,193,694
Initial Federal Share	$10,513,700
Initial Non-Federal Share	$31,235,000
Recovery Act Allocations to Date	$ 1,444,994

Total Estimated Preconstruction Engineering and Design Costs	$43,193,694
Ultimate Federal Share	$34,123,018
Ultimate Non-Federal Share	$ 9,070,676

The project was conditionally authorized in WRDA 99, with final approval contingent upon completion of a positive Chief's Report by the end of calendar year 1999. The Chief's Report gave approval to the project, with construction contingent upon the approval of a GRR and Tier II EIS by the EPA, the Department of the Interior, the Department of Commerce and the US Army Corps of Engineers. Construction funds totaling $875,000 were allocated in Fiscal Year 2009 for this project. Fiscal Year 2010 funds will be used to continue Federal oversight of the GRR and the Tier II EIS including completion of the economic, engineering and environmental analysis, and public, peer and cooperating agency reviews of the draft and final reports. The scheduled completion date for the final Tier II EIS and GRR is June 2010 with a November 2010 Record of Decision. Fiscal Year 2011 funds will be used to complete coordination of the final GRR and Tier II EIS and initiate the first set of plans and specifications.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study Total Tybee Island Channel Impacts, GA Savannah District	Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
Annual Allocation	2,004,000	365,000 0		10,000	179,000	200,000	1,250,000
Recovery Act Allocations to Date				0	0		
Total Allocations	2,004,000	365,000 0		10,000	179,000	200,000	1,250,000

Tybee Island is a 3.5-mile long barrier island, located 18 miles east of Savannah at the mouth of the Savannah River on the Atlantic Ocean. The mostly developed island is bordered on the north by the South Channel of the Savannah River, on the east by the Atlantic Ocean, and on the south and west by the Back River and other tidal creeks. The project is authorized in two parts: (1) Determine if the Savannah Harbor Federal Navigation Project is adversely impacting the shores of Tybee Island, Georgia and (2) evaluate alternatives to mitigate for any adverse affects to Tybee Island's shelf and shoreline resulting from the Savannah Harbor Federal navigation project, including consideration of modifying the existing Tybee Island Shoreline Protection Project to include shore protection for the north end of Tybee Island from the North Terminal Groin to the mouth of Lazaretto Creek. The City of Tybee Island, Georgia, is the local sponsor and they understand the requirements for cost sharing in the feasibility phase. The 905(b) Report was completed under the scope of the Construction General (CG) Tybee Island Beach Erosion project using CG funds. The Feasibility Cost Share Agreement (FCSA) was signed on 11 January 2007 for preparation of the Initial Impact Report. This Report documented the impacts to Tybee's shoreline and shelf from the Federal Navigation Channel. The PDT is currently refining scopes of work and cost estimates for the second part of the study based on the results of the ERDC Initial Impact Report. The FCSA will be amended or a new FCSA developed once the scopes of work, schedule and budget have been finalized and agreed upon by the local sponsor.

Fiscal Year 2010 funds will be used to identify and evaluate mitigation alternatives for the Savannah Harbor Federal navigation channel's impact on Tybee's shelf and shoreline.

Fiscal Year 2011 funds will be used to continue the feasibility study. The currently estimated cost of the feasibility phase is $3,716,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$3,862,000
Reconnaissance Phase (Federal)	146,000
Feasibility Phase (Federal)	1,858,000
Feasibility Phase (Non-Federal)	1,858,000

With the execution of the Feasibility Cost Share Agreement, the reconnaissance phase was completed in January 2007. The scheduled completion for feasibility study is August 2013.

SAD-66

CONSTRUCTION

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Brevard County Shore Protection Project (Continuing)

LOCATION: Brevard County is located on the east coast of Florida at the approximate midpoint of the peninsula. The project area is comprised of the 24 miles of Brevard County Atlantic ocean shoreline.

DESCRIPTION: The plan of improvement for the Brevard County beaches consists of restoration of 9.4 miles of shoreline for the north reach and 3.4 miles for the south reach. The north reach would extend from the south jetty at Canaveral Harbor to the northern limit of Patrick Air Force Base (PAFB), and the south reach would extend from Florida Department of Environmental Protection (FDEP) monument R-119 to the Spessard Holland Park. This section was originally 10.5 miles long, but 7.1 miles were excluded because of nearshore hardgrounds. Also, 4.5 miles of PAFB shoreline has been excluded upon their request.
The design berm elevation is +10.0 feet (ft) mean low water (MLW) extending from the shoreward intersection of the existing profile seaward to the location of the pre-project mean high water (MHW) shoreline. At the location of the MHW shoreline, the design template slopes 1 vertical (V) to 15 horizontal (H) seaward to the location of MLW, then 1 V to 50 H out to the intersection with the existing profile.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1.0 at 6 7/8 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1.0 at 6 7/8 percent

BASIS OF BENEFIT-COST RATIO: Benefits are from the economic analysis performed for the September 1996 Final Feasibility Report and Environmental Impact Statement, updated at October 1997 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$100,900,000	
Initial Construction		$ 23,794,000		
Periodic Nourishment		77,106,000		
Estimated Non-Federal Cost			69,300,000	
Initial Construction		$ 15,974,000		
Cash Contribution	15,949,000			
Other Costs	25,000			
Periodic Nourishment		53,326,000		
Cash Contributions	53,326,000			
Other Costs	0			
Total Estimated Project Cost			$170,200,000	
Initial Construction		39,768,000		
Periodic Nourishment		130,432,000		
Allocations to 30 September 2007			$ 28,070,355	
Allocation for FY 2008			187,000	
Allocation for FY 2009			478,000	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			521,000	
Allocation for FY 2010			521,000	
Allocations through FY 2010			29,256,355	29%
Allocation Requested for FY 2011			350,000	29%
Programmed Balance to Complete after FY 2011			71,293,645	
Un-programmed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	May 2003
Periodic Nourishment	14	TBD
Entire Project	25	TBD

Division: South Atlantic

District: Jacksonville

1 February 2010

Brevard County, FL

SA b

PHYSICAL DATA

Initial Beach Fill	4,145,000 cubic yards
Future Periodic Nourishment	1,117,000 cubic yards every 6 years

JUSTIFICATION: The primary purpose of the Brevard County Shore Protection Project is the reduction of storm damage to upland development. The project for the north reach would provide protection to over $457,000,000 in private and commercial upland development, as well as infrastructure such as roads and utilities. It is estimated that $3,132,000 annual storm damage prevention benefits exist in the north reach. This value includes the cost of damage to upland development, coastal armor, backfill, and the value of land lost. Annual incidental recreation benefits of $984,000 are also claimed for the north reach. The average annual equivalent cost for the north reach is $2,576,000. The project for the south reach would provide protection to approximately $77,000,000 in private and commercial upland development, as well as infrastructure such as roads and utilities. Average annual benefits for the project are as follows.

Annual Benefits	Amount
North Reach:	
Storm Damage Prevention	$ 3,132,000
Recreation Benefits	984,000
South Reach:	
Storm Damage Prevention	$ 3,179,000
Recreation Benefits	122,000
Total	$ 7,417,000

FISCAL YEAR 2010: Fiscal Year 2010 funding will be used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Environmental Monitoring	350,000
Total	$ 350,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the authorizing legislation, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, and relocations	$ 25,000	
Pay 37.9 percent of costs allocated to initial fill North Reach	9,270,000	
Pay 43.7 percent of costs allocated to initial fill South Reach	6,679,000	
Pay 37.9% of the separable costs for FY04 and beyond allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	23,780,000	
Pay 43.7% of the separable costs for FY04 and beyond allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	29,546,000	
Total	$69,300,000	

STATUS OF LOCAL COOPERATION: The Brevard County Board of County Commissioners is the local sponsor. A PCA amendment will be executed during FY 2010 to revise the local cooperation requirements in accordance with changed cost sharing requirements for periodic nourishment due to the impacts from the Federal navigation project.

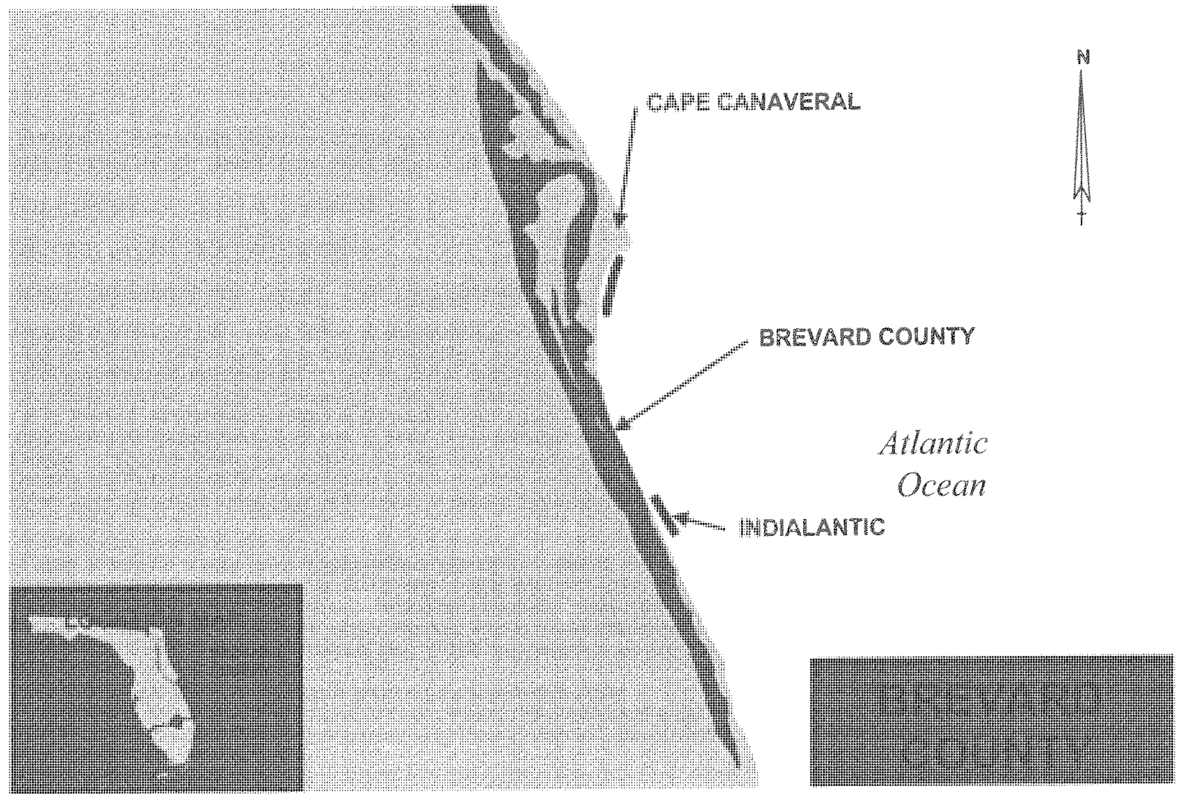
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $100,900,000 reflects an increase of $8,900,000 from the latest estimate ($92,000,000) presented to Congress (FY 2002).

Item	Amount
Price Level and Other Estimating Adjustments	$ 8,900,000
Total	$ 8,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final EIS was filed with the feasibility report on September 1996. Approximately 32 acres of nearshore rock outcrops composed of lithified coquina limestone and scattered patches of sabellariid worm rock exist along the northern two thirds of the south reach. The project plan for the south reach has been modified to avoid impacts to the hardgrounds.

Division: South Atlantic District: Jacksonville Brevard County, FL

1 February 2010



Division: South Atlantic

District: Jacksonville

1 February 2010

Brevard County, FL

SAD-71

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Ft. Pierce Beach, Florida (Continuing)

LOCATION: Ft. Pierce Beach is located on Hutchinson Island in St. Lucie County on the east coast of Florida. Ft. Pierce Beach is about 120 miles north of Miami and about 225 miles south of Jacksonville. The authorized project extends south beginning at the south jetty of the entrance to the Ft. Pierce Harbor Federal navigation project for a distance of 1.3 miles to include Surfside Park at its southern limit.

DESCRIPTION: Restoration and periodic nourishment of the 1.3 miles of shoreline for the Fort Pierce Beach Shore Protection Project (Ft. Pierce, Florida) was authorized as a Federal project in 1965. Under the original authority, a MHW (mean high water) extension of 50 feet was recommended with a berm elevation of +10 feet MLW (mean low water) chosen to tie in with the existing berm elevation. Initial construction of the project occurred in 1971 with the placement of 718,000 cubic yards of material. The first renourishment of the project was in 1980 requiring 346,000 cubic yards of beach material. The second renourishment was completed May 1999. In addition, a GRR (General Reevaluation Report) was prepared that recommends extending the 1.3-mile project an additional 1.0-mile south.

AUTHORIZATION: River and Harbor Act of 1965, as amended by Section 102 of the River and Harbor Act of 1968. Beach Erosion Control Study for St. Lucie County (Fort Pierce Beach), Florida was authorized by the River and Harbor Act of 1965 in accordance with the recommendations of the Chief of Engineers in House Document No. 84, 89th Congress. The project authorization was modified by Section 102 of the 1968 River and Harbor Act (PL 90-483) to provide for construction of the project and periodic nourishment for 10 years by the Secretary of the Army. Although Federal participation was initially limited to 10 years, it was extended to 15 years by the Assistant Secretary of the Army for Civil Works (ASA(CW)) in October 1978 under the authority of Section 156 of Public Law 94-587. Federal participation expired in 1985. A Section 934 report was approved by ASA(CW) June 1995, extending Federal participation an additional 35 years. The WRDA (Water Resources Development Act) of 1996 authorized extension of Federal participation an additional 35 years. A Project Cooperation Agreement was executed with the sponsor 3 September 1998, extending Federal participation to the year 2020. WRDA 1996 also authorized preparation of a GRR to evaluate the feasibility of extending the 1.3-mile project an additional mile south. WRDA 1999 authorized the 1.0-mile extension described in the GRR.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7-1/8 percent

TOTAL BENEFIT-COST RATIO: 1.9 to 1 at 7-1/8 percent

INITIAL BENEFIT-COST RATIO: 1.9 to 1 at 7-1/8 percent

BASIS OF BENEFIT-COST RATIO: Benefit-to-cost ratios are from the Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost			$ 34,900,000		Beach Replenishment		
Initial Construction		9,265,000			Initial Fill	100	Apr 1971
Periodic Nourishment		25,635,000			1st – 6th Renourishment	100	Jun 2007
Estimated Non-Federal Cost			$ 22,100,000		Initial Fill Addl (1.0-mile)	100	May 2003
Initial Construction		2,893,000			7th Renourishment (2.3-mile)	0	TBD
Cash Contribution	2,893,000				8th Renourishment (2.3-mile)	0	TBD
Other Costs	0				9th Renourishment (2.3-mile)	0	TBD
Periodic Nourishment		19,207,000			10th Renourishment (2.3-mile)	0	TBD
Cash Contributions	19,142,000				11th Renourishment (2.3-mile)	0	TBD
Other Costs	65,000				12th Renourishment (2.3-mile)	0	TBD
Total Estimated Project Cost			$ 57,000,000		Entire Project	0	TBD
Initial Construction		12,158,000					
Periodic Nourishment		44,842,000					
Allocations to 30 September 2007			$ 16,426,222				
Allocation for FY 2008			0				
Allocation for FY 2009			0				
Recovery Act Allocated To Date			0				
Conference Allowance for FY 2010			0				
Allocation for FY 2010			0				
Allocations through FY 2010			16,426,222	47%			
Allocation Requested for 2011			350,000	48%			
Programmed Balance to Complete after FY 2011			18,123,778				
Unprogrammed Balance to Complete after FY 2011			0				

Division: South Atlantic

District: Jacksonville
1 February 2010

Ft. Pierce Beach, Florida

SAD-73

PHYSICAL DATA

Initial Fill 1.3-mile	718,000 Cubic yards
Initial Fill of Additional 1.0-mile	652,000 Cubic yards
Future Renourishments	599,000 Cubic yards every 6 years

JUSTIFICATION: The Fort Pierce Beach shore protection project consists of 2.3 miles of shoreline extending southward from Fort Pierce Inlet. Economic justification for this project is based on the protection of structural improvements located along the front row of development of the shoreline, prevention of land losses, and prevention of repair and replacement of coastal armor. Shorefront development within the project limits is a mix of single family, multi-family, commercial, and park improvements. Justification for the authorized project is based on the remaining 20 years of the project economic life. Total annual benefits for the project are $2,587,000 while the total annual costs were determined to be $1,382,500, yielding a benefit-to-cost ratio of 1.9 to 1.0. Average annual benefits for the authorized project as stated in Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998, are as follows:

Annual Benefits	Amount
Storm Damage Prevention	$ 2,587,000
Recreation	98,600
Total	$ 2,685,600

FISCAL YEAR 2010: Fiscal Year 2010 funding was not requested.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Environmental Monitoring	350,000
Total	$ 350,000

NON-FEDERAL COST: In accordance with the cost-sharing concepts reflected in the Fort Pierce, Florida Shore Protection Project, St. Lucie County, Florida, General Reevaluation Report with Environmental Assessment dated September 1998.

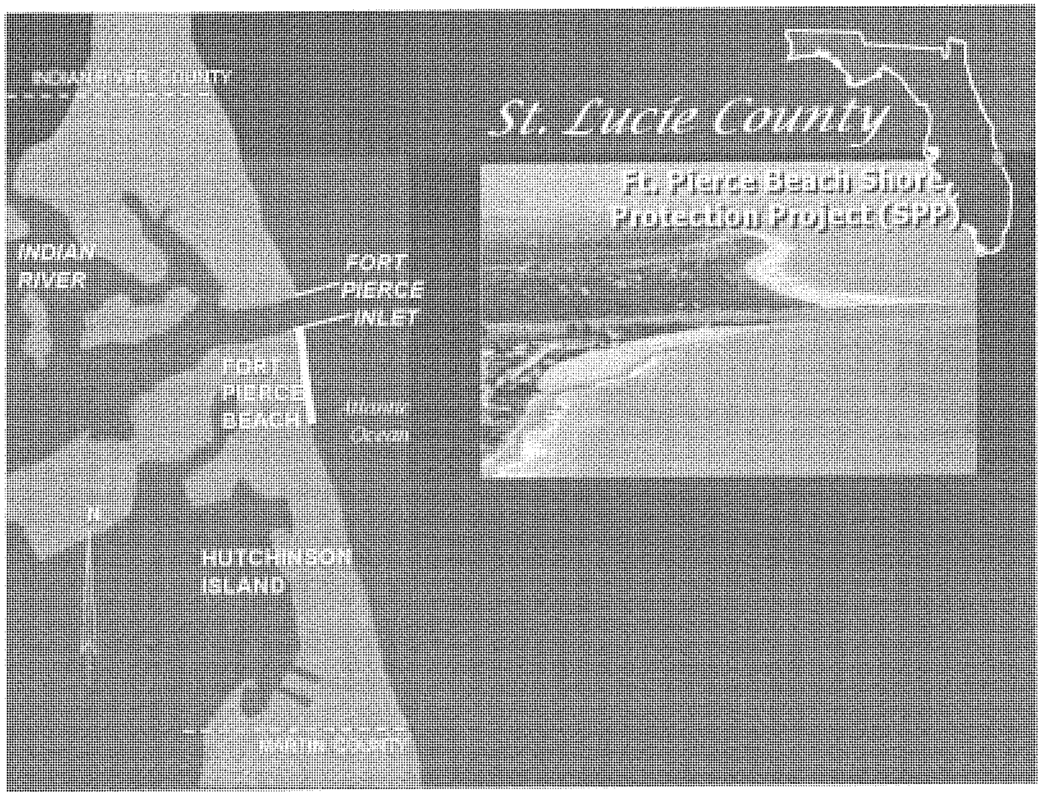
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, relocations, and dredged material disposal areas	$ 107,000	
Pay 22.5 percent of the costs allocated to initial fill	2,846,000	
Pay 22.5 percent of the costs allocated to periodic renourishment of the project shoreline	19,147,000	
Total Non-Federal Cost	$22,100,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 3 September 1998 to extend Federal participation to the year 2020 for the 1.3-mile authorized project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $34,900,000 is an increase of $4,300,000 from the latest estimate ($30,600,000) presented to Congress in FY 2000. This increase includes the following:

Item	Amount
Price Level and Other Estimating Adjustments	$ 4,300,000
Total	$ 4,300,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final EIS was prepared in 1978. An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) are included in the Fort Pierce, Florida Shore Protection Project, Reevaluation Report, Section 934 Study with Environmental Assessment dated August 1993 (Revised May 1995). The FONSI was signed 16 May 1995. As part of the GRR dated September 1998, a new Environmental Assessment was prepared and a FONSI was signed 25 September 1998.



Division: South Atlantic

District: Jacksonville
1 February 2010

Ft. Pierce Beach, Florida

SA 6

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Jacksonville Harbor, Florida (Continuing)

LOCATION: The project area is located at the mouth of the St. Johns River where it empties into the Atlantic Ocean in Duval County on the east coast of Florida.

DESCRIPTION: The project consists of deepening the main channel to a project depth of 40 feet from the 40-foot contour in the Atlantic Ocean to about mile 14.7; realignment of Cuts 39-41 of the main channel; deepening the West Blount Island Channel along Cuts F and G to 38-foot depth over the existing project width of 300 feet from the main channel to the JEA/JPA petroleum terminal; raising the existing dikes on the east end of Bartram Island to accommodate the material from deepening of the West Blount Island Channel; and extension of the main channel to a project depth of 40 feet from river mile 14.7 to mile 20.0.

AUTHORIZATION: Water Resources Development Act of 1999 and Energy and Water Development Appropriations Act of 2006 (Public Law 109-103).

REMAINING BENEFIT - REMAINING COST RATIO: N/A (Dredge Material Disposal Facility (DMDF) Portion)

TOTAL BENEFIT - COST RATIO: N/A (DMDF Portion)

INITIAL BENEFIT-COST RATIO: N/A (DMDF Portion)

BASIS OF BENEFIT-COST RATIO: Benefits are included in the Jacksonville Harbor Final Feasibility Report completed in September 1998 at October 1998 price levels and the Jacksonville Harbor General Reevaluation Report approved in July 2003 at October 2002 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		77,100,000		Channels & Canals		
Future Non-Federal Reimbursement		10,280,000		Main Channel	91	TBD
Estimated Federal Cost (Ultimate)		66,820,000		Berthing Areas	66	TBD
Estimated Non-Federal Cost		53,180,000		Entire Project	87	TBD
Cash Contributions	25,700,000					
Other	17,200,000					
Reimbursement Navigation	10,280,000					
Total Estimated Project Cost		120,000,000				
Allocations through 30 September 2007		25,834,746				
Allocation for FY 2008		2,808,000				
Allocation for FY 2009		3,349,000				
Recovery Act Allocation To Date		32,155,000				
Conference Allowance for FY 2010		1,922,000				
Allocation for FY 2010		1,922,000				
Allocations through FY 2010		66,068,746	86%			
Allocation Requested for FY 2011		6,000,000	93%			
Programmed Balance to Complete after FY 2011		5,031,254				
Un-programmed Balance to Complete after FY 2011		0				

JUSTIFICATION: Jacksonville Harbor in 1988 and 1989 averaged about 15.4 million tons of cargo per year, 53 percent of which is bulk petroleum and coal. The total amount of cargo shipped through JAXPORT has increased 18% in the last 5 years. Port Authority representatives would like the channel deepened to accommodate larger vessels now being utilized by the world's commercial fleet. Various types of vessels carrying containers, coal, and fuel must light load instead of using full cargo carrying capacity. Average annual benefits amount to $3,027,000, all for commercial navigation. The Port also supports military activities such as the deployment of equipment and materials to Iraq. It is designated as a strategic port.

Annual Benefits	Amount
Deep Draft Navigation	3,027,000
Total	3,027,000

FISCAL YEAR 2010: Appropriated funds will be used to complete channel construction from river mile 14.7 to mile 20.0, engineering during construction, and construction management.

FISCAL YEAR 2011: The requested amount will be applied as follows:

DMDF (Dredge Material Disposal Facility) Construction	$ 4,800,000
Engineering During Construction	396,000
Supervision and Administration	804,000
Total	$ 6,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, and rights-of-way	31,000	
Pay 25 percent of the costs allocated to deep draft navigation during construction	25,700,000	0
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction as reduced by a credit allowed for the value of lands, easements, rights of way, relocations, and dredged or excavated material disposal areas provided for commercial navigation.	10,280,000	0
Pay 100% of the costs associated with additional 1' deepening, dredging berthing areas and bulkhead modifications.	17,169,000	0
Total Non-Federal Cost	53,180,000	0

The non-Federal sponsor is aware of its requirement to make all required payments concurrently with project construction and reimburse and additional 10 percent of construction costs within a period of 30 years following completion of construction. These requirements will be included in the PCA.

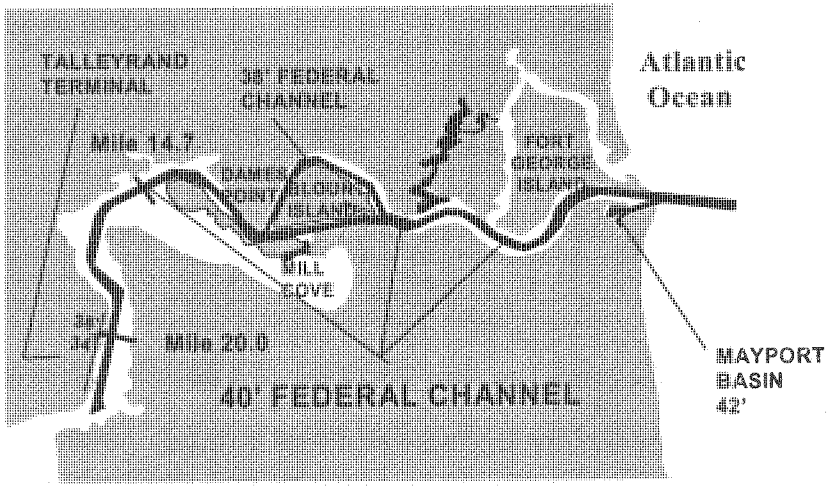
STATUS OF LOCAL COOPERATION: The Jacksonville Harbor Port Authority strongly supports this project. The Project Cooperation Agreement for the 40-foot channel to Mile 14.7 was executed in March 2001. A Cost Sharing Agreement for the second GRR (to study additional deepening to 45 feet to Mile 20.0) was executed in May 2004. A Cost Sharing Agreement and a PED Agreement for the extension of the 40-foot project from Mile 14.7 to Mile 20.0 were executed in July 2005. A PCA for the extension of the 40-foot project from Mile 14.7 to Mile 20.0 was executed in September 2006.

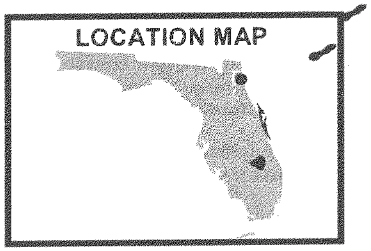
COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $77,100,000 is a $41,200,000 increase over the estimate ($35,900,000) last presented to Congress (FY 2005). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 1,446,000
Additional Features	39,754,000
Total	$ 41,200,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement for Contract I and II was completed in September 1998 and the Final Environmental Assessment for the GRR to extend the 40-foot project from Mile 14.7 to Mile 20.0 was completed in October 2002.

OTHER INFORMATION: The GRR to extend the 40-foot project from Mile 14.7 to Mile 20.0 was approved by Chief of Engineer's Report issued on 22 July 2003 and was authorized by Public Law 109-103.





N

JACKSONVILLE HARBOR, FLORIDA

Division: South Atlantic

District: Jacksonville

1 February 2010

Jacksonville Harbor, FL

SAD-81

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: Nassau County, Florida (Continuing)

LOCATION: Nassau County is the northernmost county on the east coast of Florida. Amelia Island forms the eastern border, stretching 13 miles south from the St. Marys River to the Nassau River.

DESCRIPTION: The recommended plan is comprised of 4.3 miles of Nassau County shoreline located between FDEP (Florida Department of Environmental Protection) monuments R-10 through R-33. The design template berm elevation is +13.0 feet MLW (mean low water) and would result in a pre-project mean high water extension of 40 feet. The design slopes have changed to reflect the natural existing conditions of 1V (vertical) on 15H (horizontal) to MLW and, then, 1V on 25H to existing ground.

AUTHORIZATION: Water Resource Development Act of 1988.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: (Not applicable since funds requested are for environmental monitoring as required by FDEP permit of completed construction)

INITIAL BENEFIT-COST RATIO: (Not applicable since funds requested are for environmental monitoring as required by FDEP permit of completed construction)

BASIS OF BENEFIT-COST RATIO: Nassau County, Florida, Shore Protection Project, General Reevaluation Report approved December 2006.

SUMMARIZED FINANCIAL DATA

				ACCUM PCT OF EST FED COST
Estimated Federal Cost			$ 149,800,000	
Initial Construction		$ 15,185,000		
Periodic Nourishment		134,615,000		
Estimated Non-Federal Cost			$ 40,200,000	
Initial Construction		4,092,000		
Cash Contribution	$ 4,037,000			
Other Costs	55,000			
Periodic Nourishment		36,108,000		
Cash Contributions	35,755,000			
Other Costs	353,000			
Total Estimated Project Cost			$ 190,000,000	
Initial Construction		19,277,000		
Periodic Nourishment		170,723,000		
Allocations to 30 September 2007			$ 9,171,000	
Allocation for FY 2008			5,439,000	
Allocation for FY 2009			0	
Recovery Act Allocation To Date			0	
Conference Allowance for FY 2010			0	
Allocation for FY 2010			0	
Allocations through FY 2010			14,610,000	10%
Allocation Requested for FY 2011			350,000	10%
Programmed Balance to Complete after FY2011			134,840,000	
Un-programmed Balance to Complete after FY 2011			0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	Sep 2007
Periodic Nourishment 1 – 9	0	TBD
Entire Project	10	TBD

Division: South Atlantic

District: Jacksonville

1 February 2010

Nassau County, FL

SAD-83

PHYSICAL DATA

Initial Beach Fill	2,535,000	Cubic yards
Future Periodic Nourishment	1,634,000	Cubic yards every 5 years

JUSTIFICATION: A restored beach would provide hurricane and storm damage protection for residential and commercial structures, assist in the protection and recovery of Federal or state listed threatened or endangered species, and provide additional opportunities for public use of the beach.

The annual storm damage prevention benefits, based on current shorefront development, are estimated to be $3,505,000. Average annual benefits for the recommended plan are as follows:

Annual Benefits	Amount
Storm Damage Prevention	$ 3,505,000
Recreation Benefits (not included in Economic analysis)	349,400
Total	$ 3,854,400

FISCAL YEAR 2010: Fiscal Year 2010 funding was not requested.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Environmental Monitoring	$ 350,000
Total	$ 350,000

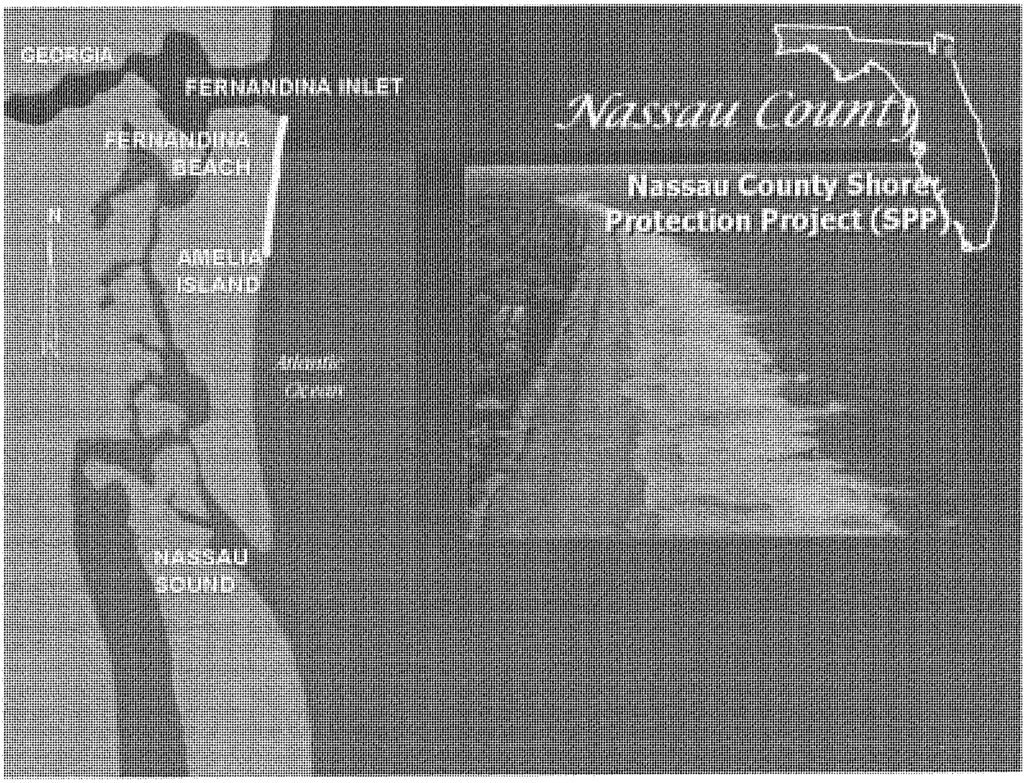
NON-FEDERAL COST: The non-Federal cost-sharing reflected in the Nassau County, Florida, Shore Protection Project, General Reevaluation Report with final Environmental Assessment dated December 2006 is 24.34%.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, right-of-ways, relocations, and dredged material disposal sites	$ 408,000	
Pay 24.34 percent of costs allocated to initial fill	4,037,000	
Pay 24.34 percent of costs allocated to periodic renourishment of the project shoreline	35,755,000	
Total Non-Federal Costs	$40,200,000	

STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 28 September 2007.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) cost estimate of $149,800,000 is the initial estimate presented to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An EA and a FONSI were prepared and included in the General Reevaluation Report dated March 17, 1999.



Nassau County Shore Protection Project (SPP)

Division: South Atlantic

District: Jacksonville

1 February 2010

Nassau County, FL

SA 3

APPROPRIATION TITLE: Construction – Channels and Harbors (Navigation)

PROJECT: Savannah Harbor Dredge Material Disposal Facilities, Georgia and South Carolina (New)

LOCATION: The Savannah Harbor Dredge Material Disposal Facilities (DMDFs) are located in Jasper County, SC, adjacent to the Savannah Harbor Federal Navigation project. The DMDFs are integral to the continued operations and maintenance of the Savannah Harbor Federal Navigation project area, which includes the lower 21.3 miles of the Savannah River and is the principal boundary between the states of Georgia and South Carolina.

DESCRIPTION: The DMDFs project provides for incrementally raising each of the dikes within the Federal project's seven DMDFs at a cycle of one disposal area per year to increase their capacity as required to support the Savannah Harbor Federal Navigation project.

AUTHORIZATION: The DMDFs are included as a part of the Savannah Harbor Federal Navigation Project, authorized in the Water Resources Development Act of 1992. Section 201 of the Water Resources Development Act of 1996 addressed cost sharing for dredged material containment facilities.

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

INITIAL BENEFIT-COST RATIO: Benefits are related to the on-going operation and maintenance of the Savannah Harbor Federal Navigation project (42-foot depth). A benefit-cost ratio for just this portion of the Savannah Harbor Navigation project was not developed.

BASIS OF BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Feb 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement		$ 21,714,940*		Entire Project	53%	N/A
Future Non-Federal Reimbursement		0				
Estimated Federal Cost (Ultimate)		$ 21,714,940				
Estimated Non-Federal Cost		$ 12,131,060				
Cash Contributions	12,131,060					
Reimbursements						
Total Estimated Project Cost		$ 33,846,000				
Allocations to 30 September 2007		$ 6,148,000				
Allocation for FY 2008		2,673,000				
Allocation for FY 2009		5,048,000				
Recovery Act Allocation To Date		2,890,000				
Conference Allowance for FY 2010		900,000				
Allocation for FY 2010		900,000				
Allocations through FY 2010		17,659,000	53%			
Allocation Requested for FY 2011		400,000				
Programmed Balance to Complete after FY 2011		3,655,940				
Un-programmed Balance to Complete after FY 2011		0				

* Total Federal Cost of Dike raisings through FY2026

Division: South Atlantic District: Savannah Savannah Harbor Disposal Areas, GA & SC

1 February 2010

S/ B

PHYSICAL DATA

Lands (Acres)	Total
Type: 7 active upland disposal sites confined by earthen dikes	7,500 acres

JUSTIFICATION: Savannah Harbor Expansion study which is underway to justify further deepening indicates that Savannah Harbor has been the fastest growing US container port since 1995, with an average annual growth rate (1995-2006) of 12.5%. The Harbor's Garden City Terminal is the second largest container port on the US East Cost by container volume, and the fourth largest in the nation. The Savannah Harbor has 61 piers and wharves that serve existing waterborne commerce. The Georgia Ports Authority is currently the second largest container port on the U.S. East Coast, with over 2 million Twenty-foot Equivalent Units (TEUs) passing through the GPA Garden City port facility. The Long Term Management Strategy (LTMS) for the Savannah Harbor, dated August 1996, described the least cost plan to continue maintenance of the existing project. The sequential raising of dikes is each of the DMDFs is critical to the ability of the U.S. Army Corps of Engineers to maintain the existing Savannah Harbor Federal Navigation project. The LTMS, as well as the annual Dredge Material Management Plan (DMMP), forecasts the dredge disposal requirements for the next 20 years.

Annual Benefits	Amount
Total	N/A

FISCAL YEAR 2010: Fiscal Year 2010 funds are being used to develop a design for and award a contract for Jones Oyster-Bed Island Dike Raisings, complete 13A Dike Raising and continue construction of 14A Dike Raising.

FISCAL YEAR 2011: Fiscal Year 2011 funds will be used to complete the Jones Oyster-Bed Island Dike Raising contract.

Jones Oyster-Bed Dike Raising Contract	$400,000
Total	$400,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

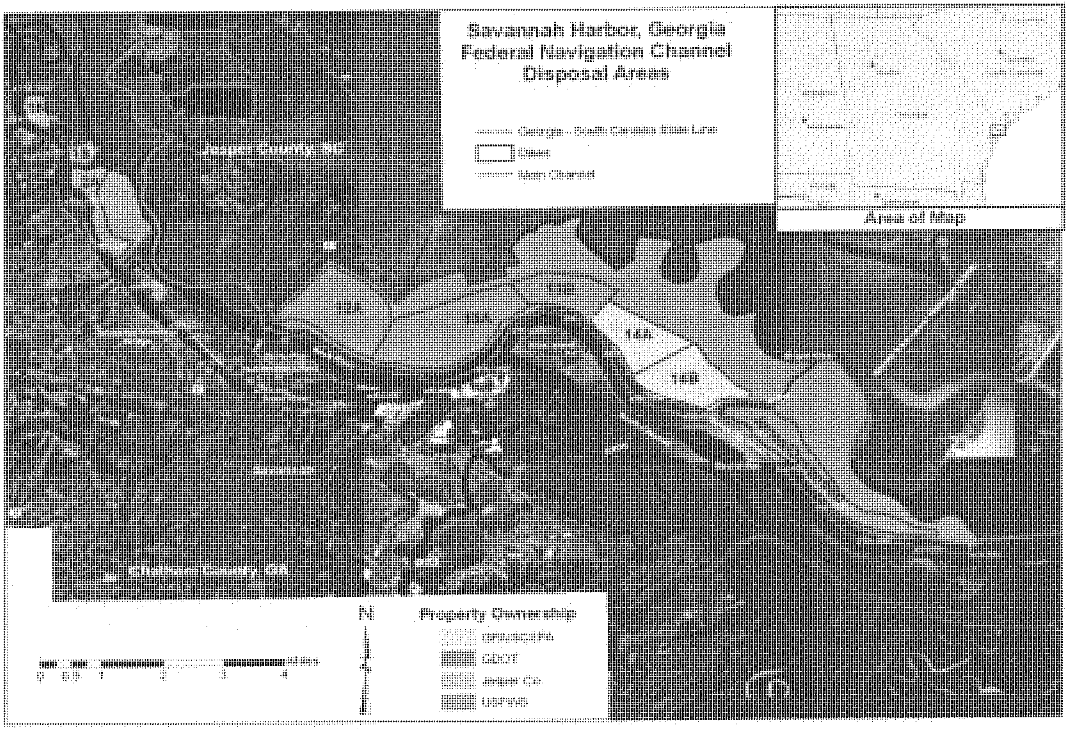
Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas	$ 0	$ 0
Pay 35 percent of the costs allocated to navigation during construction	11,692,660	0
Pay 100 percent of the costs associated with dredging berthing areas and mitigation provisions	438,400	0
Total Non-Federal Costs	$ 12,131,060	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Georgia Department of Transportation (GaDOT) is the non-Federal project sponsor. A Project Cooperation Agreement (PCA) was executed with the GaDOT in January 2005 under the authority Water Resources Development Act of 1996. The WRDA 96 Authority (Section 201) allows for the cost-sharing of the creation of new disposal area capacity and the adoption of the new capacity into the Corps' operation and maintenance requirements. The modification to the Project Cooperation Agreement was executed in January 2005 with the receipt of construction funding for FY05.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $21,714,940 is the initial estimate sent to Congress.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Savannah Harbor Long Term Management Strategy (LTMS), which includes this project, was completed in 1996. The Record of Decision (ROD) was signed February 3, 1997. A revised Dredge Material Management Plan dated April 2003 and was revised and approved in September 2003 recommends no changes to the LTMS Environmental recommendations.



Division: South Atlantic

District: Savannah

1 February 2010

Savannah Harbor Disposal Areas, GA & SC

SAD-91

APPROPRIATION TITLE: Construction – Shore Protection (Flood Risk Management)

PROJECT: St. Johns County, Florida (Continuing)

LOCATION: The authorized project is located in St. Johns County, about 100 miles south of the Florida/Georgia border in the City of St. Augustine Beach. The project area lies along a 2.5-mile stretch of shoreline, beginning approximately 14,500 feet south of the St. Augustine Inlet.

DESCRIPTION: The project as authorized provides for initial restoration of a protective beach to a width of 60 feet. Since the time of its authorization in 1986, the St. Johns County Beach Erosion Control Project shoreline has continued to deteriorate. At the north project limits, a revetment along Anastasia State Park has been flanked and is currently underwater during the majority of the tidal cycle. The city of St. Augustine Beach has found it necessary to construct a return wall along approximately 800 feet of shoreline fronting its government offices to relieve flooding due to overtopping during storm events. There is essentially no dry beach fronting the rock and rubble revetments along the majority of the project shoreline. Along the south portion of the project area, flanking of the revetment has been accompanied by near vertical scarp of the shoreline which has receded landward to within approximately 30 feet of some of the upland development. The project as designed would mitigate for impacts resulting from the Federal navigation project at St. Augustine Inlet and provide storm damage prevention benefits to the upland development.

AUTHORIZATION: Water Resources Development Act of 1986, Section 501(A), and 1999.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because initial construction has been completed.

TOTAL BENEFIT-COST RATIO: (Not applicable since funds requested are for environmental monitoring as required by FDEP permit of completed construction)

INITIAL BENEFIT-COST RATIO: (Not applicable since funds requested are for environmental monitoring as required by FDEP permit of completed construction)

BASIS OF BENEFIT-COST RATIO: Benefits are from the March 1998 St. Johns County, Florida, Shore Protection Project General Reevaluation Report with Final EA approved 18 November 1998.

SUMMARIZED FINANCIAL DATA

			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 98,600,000	
Initial Construction	$ 17,174,000		
Periodic Nourishment	81,426,000		
Estimated Non-Federal Cost		$ 23,900,000	
Initial Construction	4,159,000		
Periodic Nourishment	19,741,000		
Total Estimated Project Cost		$122,500,000	
Initial Construction	21,333,000		
Periodic Nourishment	101,167,000		
Allocations to 30 September 2007		$ 23,760,500	
Allocation for FY 2008		181,000	
Allocation for FY 2009		0	
Recovery Act Allocation To Date		0	
Conference Allowance for FY 2010		339,000	
Allocation for FY 2010		339,000	
Allocations through FY 2010		24,280,500	25%
Allocation Requested for FY 2011		350,000	25%
Programmed Balance to Complete after FY 2011		73,969,500	
Un-programmed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Beach Replenishment		
Initial Fill	100	Dec 2002
Periodic Nourishment	11	TBD
Entire Project	20	TBD

Division: South Atlantic District: Jacksonville St. Johns County, FL

1 February 2010

JUSTIFICATION: The project, as identified in the General Reevaluation Report (GRR), provides total annual reduction of damages to development of $4,585,000. Incidental recreation benefits amount to $216,000. The annual cost is $2,552,000. The benefit-to-cost ratio is 1.9 to 1.0. Also, the City of St. Augustine Beach allocated $300,000 for the repair of the existing seawall fronting city-owned property. Highway A1A traverses the project area and is designated as a hurricane evacuation route. Past northeasters have caused considerable flooding and damage to the road, rendering it impassible. A portion of the highway at the north end of the study area was relocated landward due to the severity of the erosion problems. In addition, the construction and subsequent maintenance of the navigation works at St. Augustine Harbor by the Federal government have altered the littoral processes in the vicinity of the inlet. As a result, erosion of the 2.5-mile project area was doubled. Congress, in recognition of the need to mitigate the erosion attributed to the Federal navigation works, authorized increased Federal cost sharing in the shore protection project. Cost sharing for this project is 80.5 percent Federal and 19.5 percent non-Federal. Average annual benefits for the NED plan identified in the GRR are as follows:

Annual Benefits	Amount
Storm Damage Prevention	$ 4,585,000
Recreation Benefits	216,000
Total	$ 4,801,000

FISCAL YEAR 2010: Fiscal Year 2010 funding will be used for environment monitoring activities due to impacts from the Federal navigation project.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Environmental Monitoring	$ 350,000
Total	$ 350,000

NON-FEDERAL COST: In accordance with the cost-sharing financing concepts reflected in the General Reevaluation Report with Environmental Assessment for the St. Johns County, Florida Shore Protection Project dated March 1998, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 19.5 percent of the costs allocated to initial fill	$ 4,159,000	0
Pay 19.5 percent of the separable costs allocated to recreation, including periodic nourishment, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of breakwater features.	19,741,000	0
Total Non-Federal Costs	$ 23,900,000	0

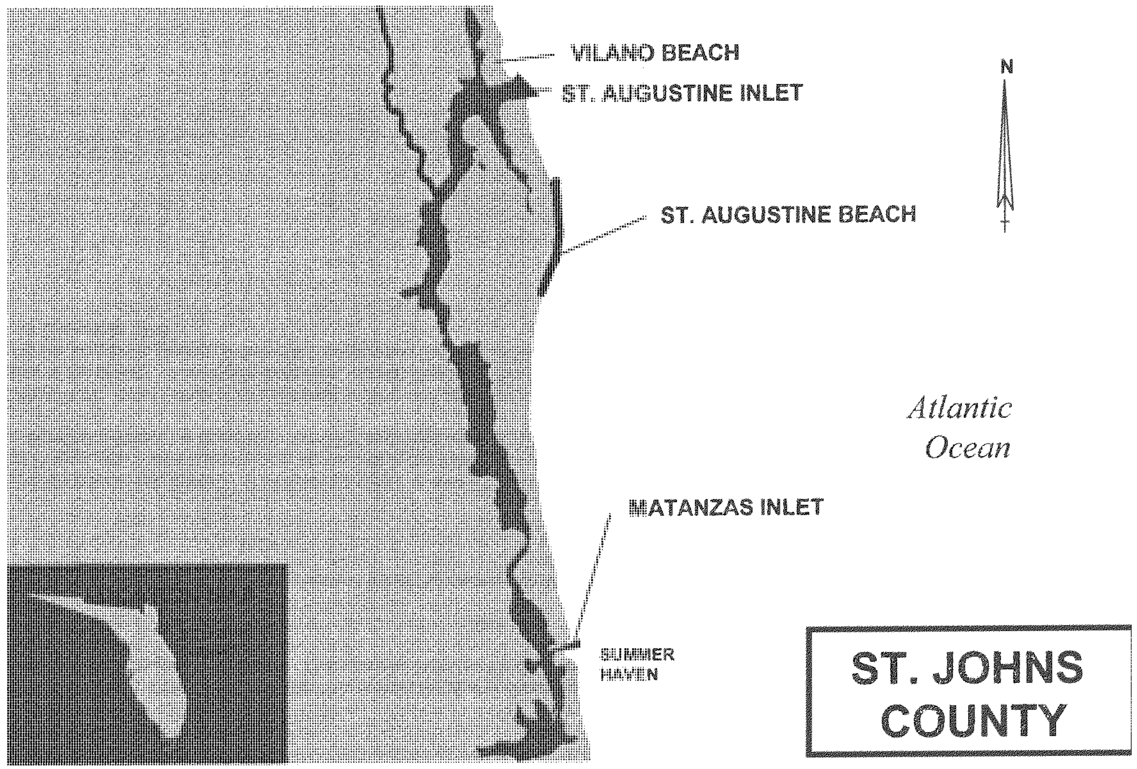
STATUS OF LOCAL COOPERATION: A Project Cooperation Agreement was executed 24 August 2000 between the St. Johns County Board of Commissioners and the Federal Government.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $98,600,000 is an increase of $10,700,000 from the latest estimate ($87,900,000) submitted to Congress (FY 2001). This increase includes the following:

Item	Amount
Price Level and Other Estimating Adjustments	$ 8,900,000
Total	$ 8,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT (EIS): A final EIS was prepared and included in the Feasibility Report for the St. Johns County Beach Erosion Control Project, which was subsequently authorized in the Water Resource Development Act of 1986. An Environmental Assessment and a FONSI (Finding-of-No-Significant-Impact) is included in the GRR approved by ASA (CW), 15 December 1998.

OTHER INFORMATION: Initial Construction, General funding was provided in FY 1995. Congress appropriated funding in Fiscal Year 1994 to prepare an economic update of the project. A favorable Economic Update Report for the St. Johns County, Florida Beach Erosion Control Project was approved 24 March 1995. Following the Economic Update, a General Reevaluation Report (GRR) was prepared in March 1998 and approved by HQUSACE 18 November 1998 and by ASA (CW) 15 December 1998.



Division: South Atlantic

District: Jacksonville

1 February 2010

St. Johns County, FL

S/ 6

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Tampa Harbor, Main Channel, Florida (Continuing)

LOCATION: Tampa Harbor is located about midway along the Gulf coast of Florida in Tampa and Hillsboro Bays.

DESCRIPTION: The total project consists of a channel from the Gulf of Mexico to Port Tampa and Tampa. Project features include the entrance channel from the Gulf of Mexico to Hillsborough Bay. At Hillsborough Bay, the channel splits into two legs, with one continuing west to Port Tampa and the other east to Gadsden Point. The west channel continues to Port Tampa and ends in a turning basin. The east channel to Gadsden Point includes the Alafia River, Port Sutton, East Bay, and Seddon Channels. The project depth varies from 45 feet in the entrance channel at the Egmont Bar Channel to 30 feet in the Alafia River. Length of project is about 67 miles including 3.6 miles in the Alafia River.

AUTHORIZATION: River and Harbor Act of 1970.

REMAINING BENEFIT-REMAINING COST RATIO: N/A (Dredge Material Disposal Facility (DMDF) Portion)

TOTAL BENEFIT-COST RATIO: N/A (DMDF Portion)

INITIAL BENEFIT-COST RATIO: N/A (DMDF Portion)

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio for the fiscal year for which Congress appropriated initial construction funds (FY 1975) was 1.7 to 1.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement (COE)		$176,767,400	
Estimated Appropriation Requirement (USCG)		1,708,000	
Estimated Non-Federal Cost		6,700,000	
Cash Contributions	2,727,000		
Other	3,973,000		
Total Estimated Project Cost		$185,175,400	
Allocations to 30 September 2007		$173,767,400	
Allocation for FY 2008		0	
Allocation for FY 2009		0	
Recovery Act Allocation To Date		0	
Conference Allowance for FY 2010		0	
Allocation for FY 2010		0	
Allocations through FY 2010		173,767,400	98%
Allocation Requested for FY 2011		1,000,000	99%
Programmed Balance to Complete after FY 2011		2,000,000	
Un-programmed Balance to Complete After FY 2011		0	

STATUS (1 January 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Channels & Canals		
Main Channels	100	Aug 88
Disposal Area Raising	93	TBD
Entire Project	99	TBD

JUSTIFICATION: Tampa Harbor is among the nation's leading exporters of phosphate rock and chemicals. Average annual benefits, for all navigation features, are $31,400,000 at October 1984 price levels.

Annual Benefits	Amount
Deep Draft Navigation	$31,400,000
Total	$31,400,000

Division: South Atlantic District: Jacksonville Tampa Harbor, Main Channel, FL

1 Februarv 2010

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FISCAL YEAR 2010: Fiscal Year 2010 funding was not requested.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate DMDF (Dredge Material Disposal Facility) Construction	$ 800,000
Planning, Engineering and Design	70,000
Construction management	130,000
Total	$ 1,000,000

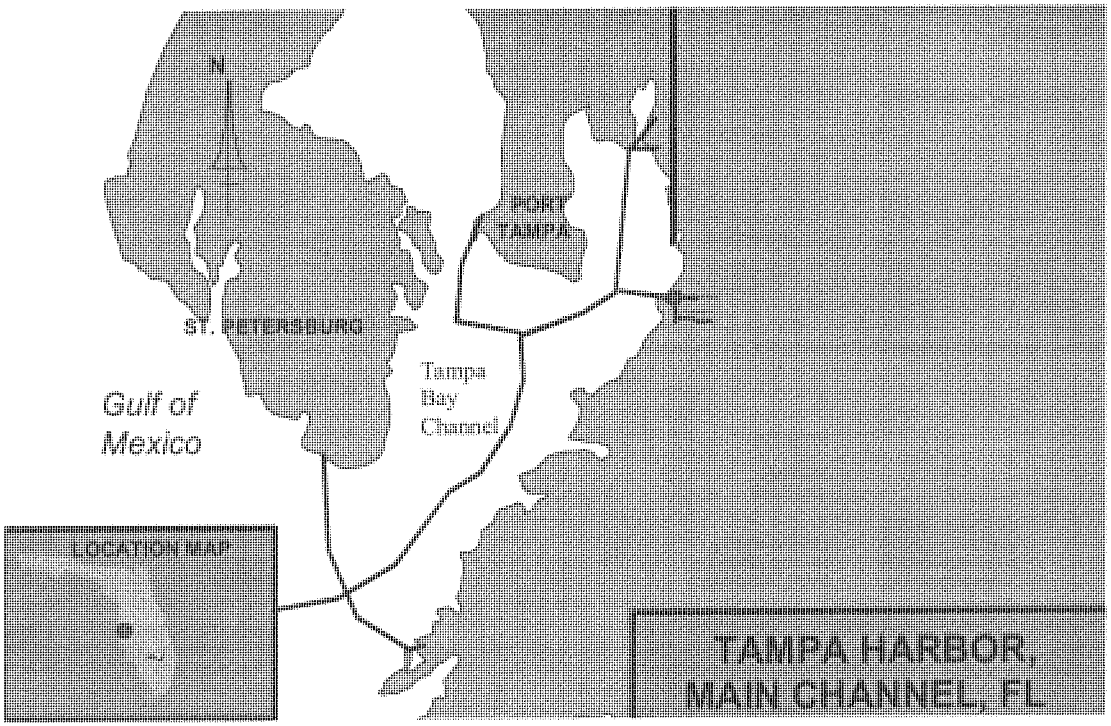
NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 0.6 percent of the costs allocated to deep draft navigation during construction.	$2,727,000	0
Diking.	3,973,000	0
Total Non-Federal Cost	$6,700,000	0

STATUS OF LOCAL COOPERATION: The Tampa Port Authority strongly supports this project.

COMPARISON OF FEDERAL COST ESTIMATE: The current Federal (Corps) cost estimate of $176,767,440 is an increase of $3,000,000 over the last estimate ($173,767,440) presented to Congress (1988). This change includes the following items:

Item	Amount
Post contract award and other estimating adjustments	$ 3,000,000
Total	$ 3,000,000



Division: South Atlantic

District: Jacksonville

1 February 2010

Tampa Harbor, Main Channel, FL

SAD [illegible]

APPROPRIATION TITLE: Construction - Channel and Harbors (Navigation)

PROJECT: Wilmington Harbor, North Carolina (Continuing)

LOCATION: The project is located at Wilmington on the southeastern coast of North Carolina in New Hanover and Brunswick Counties.

DESCRIPTION: The project consists of two separable elements, the portion for deepening of the existing project and the portion for raising the dikes on the Eagle Island dredged material disposal facility (DMDF) for maintenance of the existing project until the deepening is completed. Features constructed to date include deepening the ocean bar and entrance channels to the authorized depth of 44 feet; deepening the project to 42 feet up from Lower Swash Channel to and including the Between Channel; widening the existing 400-foot wide channel to 600 feet over a total length of 6.2 miles including Lower and Upper Midnight and Lower Lilliput reaches; widening five turns and bends by 100 to 200 feet providing a total average channel width of 500 to 675 feet; and widening the Fourth East Jetty Channel to 500 feet over a total length of 1.5 miles. Features yet to be completed include deepening the anchorage basin immediately upriver from the North Carolina State Ports Authority dock from 38 feet to 42 feet; extending the anchorage basin northward by 300 feet; deepening the 32-foot channel between Castle Street and the Hilton Railroad Bridge, the 32-foot turning basin just above the mouth of the Northeast Cape Fear River on the west side, and the 25-foot channel from the Hilton Railroad Bridge to 750 feet upstream all to a depth of 38 feet; deepening the 25-foot channel from 750 feet upstream of the Hilton Railroad Bridge to the turning basin near the upstream limits of the project to 34 feet, along with widening of the channel from 200 to 250 feet; and widening the turning basin from 700 to 800 feet. Mitigation requirements are partially complete with the acquisition of, by fee title, 30 acres of upland areas and construction of an embayment. Acquisition of about 800 acres of existing marsh and upland areas for preservation of habitat to offset losses of wetlands and primary nursery areas are underway. A Fish Passage at Lock and Dam #1 still remains to be constructed as mitigation for the deepening actions already accomplished. Improvement to the Eagle Island dredged material disposal facility is also underway by incrementally raising the dikes of three cells from their current elevations to an ultimate elevation of 40 feet. A separate Section 933 project was added in FY 2001 to place sand on Brunswick County Beaches. Approval to initiate a separate General Reevaluation Report was received in June 2005 to reevaluate the requirements for the relocated 39-foot turning basin to be above the Hilton Railroad Bridge and any associated required mitigation.

AUTHORIZATION: Water Resources Development Acts of November 17, 1986 (PL 99-662) and October 12, 1996 (PL 104-303) and the Energy and Water Development Appropriations Act, 1998.

REMAINING BENEFIT- REMAINING COST RATIO: 2.7 to 1 at 7 percent (deepening portion); N/A (DMDF Portion).

TOTAL BENEFIT-COST RATIO: 1.4 to 1 at 7 percent (deepening portion); N/A (DMDF Portion).

INITIAL BENEFIT - COST RATIO: 1.3 to 1 at 7-5/8 percent (deepening portion); N/A (DMDF Portion).

BASIS OF BENEFIT-COST RATIO: Benefits for the deepening portion are from the evaluation contained in the feasibility report dated June 1996 at October 1995 price levels for the previous Cape Fear-Northeast Cape Fear River project, in the General Design Memorandum Supplement dated February 1994 at October 1993 price levels for the previous Wilmington Harbor-Northeast Cape Fear River project and in the feasibility report dated March 1994 at October 1992 price levels for the previous Wilmington Harbor Channel Widening project. Project feasibility for the DMDF portion is based on the original project authorization and the method of disposal of the dredged material is based on the least cost alternative as shown in the decision report approved 1 September 1998.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement (COE)			$358,613,000	
Estimated Appropriation Requirement (OFA)			1,887,000	
Estimated Total Appropriation Requirement			$360,500,000	
Future Non-Federal Reimbursement			44,000,000	
Estimated Federal Cost (Ultimate)			$316,500,000	
Estimated Non-Federal Cost			$216,500,000	
Cash Contributions		121,232,000		
Other Costs		51,268,000		
Reimbursements		44,000,000		
Navigation	44,000,000			
Total Estimated Project Cost			$533,000,000	
Allocations to 30 September 2007			242,783,000	
Allocation for FY 2008			3,745,000	
Allocation for FY 2009			2,075,000	
Recovery Act Allocation to Date			0	
Conference Allowance for FY 2010			1,701,000	
Allocation for FY 2010			1,701,000	
Allocations through FY 2010			250,304,000	70
Allocation Requested for FY 2011			1,800,000	70
Programmed Balance to Complete after FY 2011			106,509,000	
Unprogrammed Balance to Complete after FY 2011			0	

PHYSICAL STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Deepening Portion	78	September 2016
Dredged Material Disposal Facility (DMDF) Portion	11	September 2020
Entire Project	70	September 2020

Division: South Atlantic District: Wilmington Wilmington Harbor, NC

1 February 2010

PHYSICAL DATA

Channels and Basins	Length	Width	Depth
Ocean Bar and Entrance Channel	8.5 miles	500 feet	44 feet
River Channel to mile 27.5	24.8 miles	400 feet	42 feet
Passing Lane	6.2 miles	200 feet	42 feet
Turns and Bends – widen five turns and bends by 100 to 200 feet providing a total average navigation channel width of 500 to 675 feet.			
Anchorage Basin	1,600 feet	1,200 feet	42 feet
Fourth East Jetty	1.5 miles	500 feet	42 feet
Castle Street to NC 133 Bridge	1.7 miles	400 feet	38 feet
NC 133 Bridge to Hilton RR Bridge	0.5 miles	300 feet	38 feet
Hilton RR Bridge Upstream	750 feet	200 feet	38 feet
Turning Basin #1	750 feet	750 feet	38 feet
Channel from 750 feet upstream of Hilton RR Bridge to mile 30.5	1.3 miles	250 feet	34 feet
Turning Basin #2	550 feet	800 feet	34 feet

Mitigation – Acquisition of 30 acres of uplands and construction of an embayment, acquisition of 650 acres to offset losses of wetlands and primary nursery area and fish passage at Lock and Dam No. 1 on the Cape Fear River.

Incremental dike raising of cells 1, 2, and 3 on Eagle Island confined disposal facility to elevations 25, 29, 32, 35, 38 and 40 feet.

JUSTIFICATION: Waterborne commerce on the existing Wilmington Harbor project was 8.0, 8.4 and 7.9 million tons, respectively, for the period 2005-2007. The recommended project would result in substantial savings ranging from $0.57 to $13.00 per ton in transportation and handling costs on certain commodities. The largest savings would be $13.00 per ton on liquefied gas followed by chrome ore at $6.88. The major commodities imported through the port are salt, chrome ore, fertilizer materials, basic chemicals, asphalt, alcohols and cement with major exports being tobacco, wood pulp and dimethyl terephthalate fibers. The Port of Wilmington handled 173,111 loaded containers in 2007, 204,896 in 2008, and 194,608 in 2009. The previous 38-foot project could handle vessels in the 25,000 to 40,000 ton class while the current 42-foot project can handle vessels in the 35,000 to 60,000 ton class. For the portion of the project already deepened, estimated efficiencies have come to fruition. The average tons per vessel call before deepening (1999-2003) was 4,739 while after deepening the average tons per vessel call is 8,788, which is an 85% increase in efficiency. The current 32-foot channel in the Northeast Cape Fear River can handle vessels in the 25,000 ton class while the recommended 38-foot channel will handle vessels in the 40,000 ton class. Recently completed investments in container facilities, regional highway improvements, airport facilities, and refrigerated warehouse storage will result in greater opportunities for growth. The Wilmington Harbor Ocean Dredged Material Disposal Site has been utilized to construct the lower reaches. An existing disposal site, the Eagle Island confined disposal facility, has been utilized for the middle reach and the upper reach of the project. The Eagle Island dikes are being raised to increase capacity, as required.

JUSTIFICATION (continued):

Operations and maintenance dredging cost requirements of up to $16,000,000 would be incurred every year. They represent the equivalent average annual cost of this operation and can therefore be compared directly to the equivalent annual cost associated with the Eagle Island dike plan. This comparison resulted in the dike raising being the least costly alternative. Also, the dredged material management plan is the formal decision document for future cost sharing of modifications to disposal areas. The recommended improvements are essential to the economic welfare of New Hanover County and the surrounding area. Average annual benefits are as follows based on the feasibility report dated June 1996 at October 1995 price levels:

Annual Benefits	Amount
Commercial Navigation	$39,292,000
Environmental Enhancement	(not quantified)
Total	$39,292,000

FISCAL YEAR 2010: The allocated amount of $1,701,000 will be used to continue the dredged management material plan and the biological and physical monitoring.

FISCAL YEAR 2011: The requested amount of $1,800,000 will be applied as follows:

Continue Biological & Physical Monitoring for deepening portion	$1,800,000
Total	$1,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Separable Element (Deepening Portion):		
Provide lands, easements, rights of way, and dredged material disposal area lands.	$ 2,193,000	$6,000
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project.	22,929,000	
Pay 25 percent of the costs allocated to deep draft navigation during construction.	103,352,000	
Pay 35 percent of costs allocated to Section 933 portion during construction.	5,380,000	
Provide and maintain, at its own expense, the local service facilities necessary to realize the benefits of the general navigation features.	26,146,000	
Reimburse an additional 10 percent of the costs allocated to general navigation facilities within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights of way, relocations and dredged material disposal areas.	39,000,000	
Total Non-Federal Costs	$199,000,000	$6,000
Separable Element (DMDF):		
Pay 25 percent of the cost of construction of the facilities.	$ 12,500,000	
Reimburse an additional 10 percent of the costs of the facility within a period of 30 years following completion of construction.	5,000,000	
Total Non-Federal Costs	$17,500,000	$0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and reimburse its share of construction costs within a period of 30 years following completion of construction.

STATUS OF LOCAL COOPERATION:

The state of North Carolina is the project sponsor. By letters dated 16 May 1996 and 24 April 1997, the state expressed support for the project and provided assurances to act as project sponsor and signed a Project Cooperation Agreement (PCA) on 26 March 1999. The state of North Carolina has received appropriations from the General Assembly to fund its share of the project cost. The future reimbursement payment will be initiated in the year following completion of construction. All work on the dredged material disposal facility prior to FY 2000 was accomplished with advanced contributed funds under an agreement executed in July 1997. The future reimbursement for this element will be initiated in the year following the completion of the first dike raising.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate of $358,613,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: The draft EIS for the deepening portion was filed with the EPA in February 1996. The final EIS was filed with the EPA in July 1996. 401 Certification was completed in October 1996. The final EIS for the DMDF portion was filed with the EPA in July 1996. A Record of Decision was signed in December 1996. A Finding of No Significant Impact for design changes was signed in June 2000.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1987. Funds to initiate construction were appropriated in FY 1998. The Wilmington Harbor, NC - 96 Act, and Wilmington Harbor, NC (Dredged Material Disposal Facilities) projects were combined in October 1998 to form this project.

Wilmington Harbor, NC - 96 Act - Deepening Portion

SUMMARIZED FINANCIAL DATA FOR SEPARABLE ELEMENTS:

Estimated Appropriation Requirement (COE)			$321,113,000
Estimated Appropriation Requirement (OFA)			1,887,000
Estimated Total Appropriation Requirement			323,000,000
Estimated Federal Cost (Ultimate)			284,000,000
Estimated Non-Federal Cost			199,000,000
Cash Contributions		108,732,000	
Other Costs		51,268,000	
Reimbursements		39,000,000	
Navigation	39,000,000		
Total Estimated Project Cost			$483,000,000

REMAINING BENEFIT-REMAINING COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: 2.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: 1.4 to 1 at 7 percent.

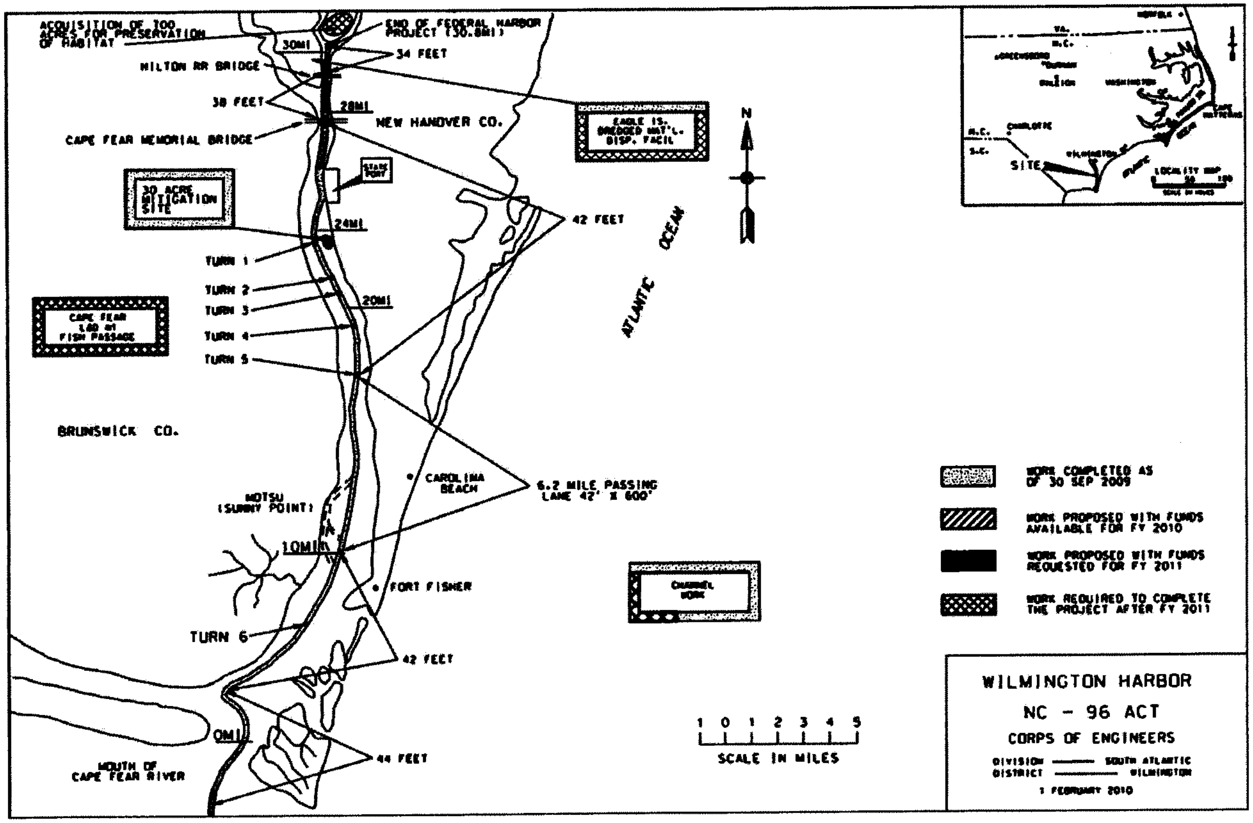
Wilmington Harbor, NC - Dredged Material Disposal Facilities Portion

SUMMARIZED FINANCIAL DATA FOR SEPARABLE ELEMENTS:

Estimated Total Appropriation Requirement			$37,500,000
Estimated Non-Federal Reimbursement			5,000,000
Estimated Federal Cost (Ultimate)			32,500,000
Estimated Non-Federal Cost			17,500,000
Cash Contributions		$12,500,000	
Other Costs		0	
Reimbursements		5,000,000	
Navigation	$5,000,000		
Total Estimated Project Cost			$50,000,000

REMAINING BENEFIT-REMAINING COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: Not Applicable.

TOTAL BENEFIT-COST RATIO FOR PROGRAMMED SEPARABLE ELEMENTS: Not Applicable.



Division: South Atlantic

District: Wilmington

Wilmington Harbor, NC

1 February 2010

SAD-109

AQUATIC ECOSYSTEM RESTORATION

SAD-110

INVESTIGATIONS

SAD-111

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2008	Allocation FY 2008	Alloc ation FY 2009	Allocation FY 2010	Tentative Alloc ation FY 2011	Additional to complete After FY 2011
Currituck Sound, North Carolina Wilmington District	$	$	$	$	$	$	$
Annual Allocation	1,625,000	785,000	138,000	143,000	126,000	300,000	133,000
Recovery Act Allocations to Date				0	0		
Total Allocations	1,625,000	785,000	138,000	143,000	126,000	300,000	133,000

The study area, comprised of Currituck Sound and Back Bay, is located in Currituck and Dare Counties in northeastern North Carolina, and in Chesapeake and Virginia Beach Counties in southeastern Virginia. Currituck Sound, Back Bay and their watersheds comprise one of the most unique brackish water estuaries and wildlife habitats in the United States. Together they are the beginning of North Carolina's legendary Outer Banks, and the northern end of the Albemarle-Pamlico National Estuarine System comprising an area of over 190 square miles. Currituck Sound and Back Bay are renowned for prolific waterfowl and fish populations. Local interests are concerned about significant declines in these populations in recent years. Based on the Currituck Sound Study of mid-winter waterfowl surveys conducted from 1961 through 2006, the waterfowl population peaked in 1976, with 305,000 birds. Since then, the waterfowl population declined well below 50,000 birds. Of the 21 fish species identified in 1961, only 15 were identified in 2003. The declines in the fish and waterfowl populations are attributed to significant loss of submerged aquatic vegetation (SAV), a major food source for water bird and marine mammals, and critical habitat for a host of vertebrate and invertebrate organisms. SAVs once grew in abundance, covering most of the shallow waters of Currituck Sound and Back Bay. Today, these areas retain only 35% and 5%, respectively, of the SAV distributions of 25 years ago. SAV loss has been attributed to water quality degradation and development pressures in the region. Potential alternative actions could include marsh creation, development of bird rookery, and creation of submerged aquatic vegetation. The feasibility cost sharing agreement was signed on 5 February 2004 with the state of North Carolina, who is fully committed to the requirements of the study. Non-Corps study participants include Elizabeth City State University, the U.S. Geological Survey, the N.C. Estuarine Research Reserve, the U.S. Fish and Wildlife Service, the N.C. Department of Environment and Natural Resources, Division of Water Resources, and the Albemarle-Pamlico National Estuary Program.

Fiscal year 2010 funds are being used to continue the feasibility phase, hold a feasibility scoping meeting and continue hydrodynamic and water quality modeling activities. Fiscal year 2011 funds would be used to continue the feasibility phase, complete hydrodynamic and water quality modeling and initiate site selection and sediment modeling. The estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase was completed in February 2004. The feasibility phase is scheduled for completion in December 2012.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic Division

Study	Total Estimated Federal Cost	Allocation Prior to FY 2008	Allocation Alloc FY 2008	ation Alloc FY 2009	ation FY 2010	Tentative Allocation FY 2011	Additional to complete After FY 2011
John H. Kerr Dam and Reservoir (Section 216) Wilmington District	$	$	$	$	$	$	$
Annual Allocation	2,685,000	1,405,000	277,000	287,000	251,000	300,000	165,000
Recovery Act Allocations to Date				0	0		0
Total Allocations	2,685,000	1,405,000	277,000	287,000	251,000	300,000	165,000

The John H. Kerr Dam and Reservoir is located in the Roanoke River basin, which includes portions of north-central North Carolina and south-central Virginia. The project was completed in 1952 and provides hydropower, flood risk management, water supply, and recreation. Two downstream non-Federal hydropower reservoirs operated by Dominion North Carolina Power, Gaston and Roanoke Rapids, have minimal active storage for daily hydropower peaking. The Kerr, Gaston and Roanoke Rapids projects operate cooperatively to generate power, reduce flood damage, and ensure appropriate downstream flows. The lower Roanoke River basin is one of the finest remaining river swamp forest ecosystems in the eastern United States, and is designated as one of The Nature Conservancy's Sustainable Rivers Projects. These bottomland hardwood forests, wetlands, uplands, and streams provide a high quality habitat for fish and wildlife, including waterfowl. Federal and State agencies have expressed concern that there is a correlation between operation of Kerr Reservoir and fish kills in the lower Roanoke River due to low dissolved oxygen. Resource concerns for the lower Roanoke River include the need for restoration and enhancement of extensive swamp and flood plain forest habitats and fisheries through improvements to the hydrologic regime. The feasibility cost sharing agreement was signed on 17 June 2003 by the state of North Carolina and the commonwealth of Virginia, who are fully committed to the requirements for the feasibility study.

Fiscal Year 2010 funds are being used to continue stage 3 formulation and evaluation of alternative plans to improve the hydrologic regime and restore and enhance habitats for the lower Roanoke River, hold the feasibility scoping meeting and complete stage 2 technical studies and data collection. Fiscal Year 2011 funds would be used to complete plan formulation and evaluation and to prepare and coordinate the draft feasibility report, including the alternative formulation briefing, and Corps of Engineers, sponsor, public, and NEPA review of the report. The estimated cost of the feasibility phase is $5,020,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,195,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,510,000
Feasibility Phase (Non-Federal)	2,510,000

The reconnaissance phase was completed in June 2003. The feasibility phase is scheduled to be completed in February 2012.

PROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Atlantic

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (ENR)							
Neuse River Basin, NC Wilmington District							
Annual Allocation	900,000	0	0	0	0	200,000	700,000
Recovery Act Allocations to Date				0	0		
Total Allocations	900,000	0	0	0	0	200,000	700,000

The recommended project is located in the eastern part of North Carolina and is expected to include construction of up to 2,000 acres of oyster reefs and restoration of 4 streams including removal and/or modification of 5 dams. The Neuse River basin encompasses approximately 11 percent of the state of North Carolina's physical size and consists of all or portions of 19 counties. The basin is roughly oblong in shape, approximately 180 miles long, with a maximum width of about 46 miles. The Neuse River is formed by the confluence of the Eno and Flat Rivers, about 8 miles north of Durham, and has a drainage area of 5,710 square miles. The basin is primarily an agricultural region, but contains many small towns and several cities, which are important commercial centers. At the city of New Bern, the Neuse River system changes from a free-flowing river to a tidal estuary. There have been considerable problems in the basin due to increased urbanization in the Raleigh-Durham area, sediment and nutrient loading from agricultural areas in the lower half of the basin, and over-harvesting of certain fisheries in the Neuse Estuary, all of which have had adverse impacts on wetlands and submerged aquatic vegetation (SAV). Estuarine bottom is lost annually due to low dissolved oxygen. Environmental restoration alternatives include stream restoration, anadromous fish habitat restoration, and oyster habitat restoration in the Neuse Estuary, part of Albemarle-Pamlico National Estuary. A secondary focus of this project is flood risk management. A number of flood prone structures have been removed by the Federal Emergency Management Agency, which has reduced the occurrence of future flood damages within the flood plain. The sponsor, NC Department of Environment and Natural Resources, supports the project as evidenced by their execution of the feasibility cost sharing agreement in May 2002, understands and is ready to sign the PED cost sharing agreement upon completion of the feasibility phase and has funds available to finance the PED portion of the project. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through PED at 25% non-Federal. Any adjustment that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction		Total Estimated Preconstruction	
Engineering and Design Costs	$1,200,000	Engineering and Design Costs	$1,200,000
Initial Federal Share	900,000	Ultimate Federal Share	780,000
Initial Non-Federal Share	300,000	Ultimate Non-Federal Share	420,000

The project is not yet authorized for construction. Fiscal year 2010 funds are being used to continue the feasibility phase. Fiscal year 2011 funds would be used to initiate PED. The feasibility phase is scheduled for completion in August 2011. PED is scheduled to be completed in March 2015.

CONSTRUCTION

SAD-115

APPROPRIATION TITLE: Construction – Environmental Restoration

PROJECT: South Florida Ecosystem Restoration Program, Florida (Continuing)

LOCATION: The South Florida Ecosystem Restoration Program stretches from the southern Orlando area southward across the Everglades, the Florida Keys, and the contiguous and near-shore waters of South Florida, and across South Florida from east to west including portions of the drainage areas of the Indian River Lagoon and the Caloosahatchee River, as well as population centers along the southeast and southwest coasts. The project area is defined by the political boundaries of the Southwest Florida Water Management District, and includes all of the Everglades. It encompasses an area of approximately 18,000 square miles, which includes all or part of 18 counties in the southeast part of the State of Florida. Principle areas are the Kissimmee River Basin, Lake Okeechobee, Everglades Agricultural Area, Upper East Coast, Lower East Coast, Big Cypress Basin, Water Conservation Areas, Everglades National Park, Southwest Florida, Florida Bay and the Florida Keys.

DESCRIPTION: The South Florida Ecosystem Restoration Program includes the Central and Southern Florida (C&SF) Project, the Kissimmee River Restoration Project, the Everglades and South Florida Restoration Project, and the Modified Waters Deliveries Project. The C&SF project includes the following separable elements: West Palm Beach Canal, C-111 (South Dade), Comprehensive Everglades Restoration Plan (CERP), and Manatee Pass Thru Gates. The Everglades and South Florida Restoration projects include the following separable elements: East Coast Canal Structures, Western C-11 Basin, Seminole Big Cypress, Ten Mile Creek, Tamiami Trail (Western Culverts), Florida Keys Carrying Capacity, Lake Okeechobee Water Retention, Southern CREW, and Lake Trafford. The objective of the South Florida Ecosystem Restoration Program is to restore, protect and preserve the South Florida ecosystem including the Everglades, while providing for other water related needs of the region.

The C&SF Project includes 1,000 miles of canals, 720 miles of levees and several hundred water control structures, which provide water supply, flood damage reduction, water management and other benefits to south Florida.

Picayune Strand (Southern Golden Gate Estates) Hydrologic Restoration was authorized under Section 1001(15) of the Water Resources Development Act (WRDA) of 2007. The purpose of this project is to restore and enhance the wetlands in the Southern Golden Gates Estates area of Picayune Strand and in adjacent public lands by reducing over-drainage. Implementation of the restoration plan would also improve the water quality of coastal estuaries by moderating the large salinity fluctuations caused by freshwater point discharge of the Faka Union Canal. The plan would also aid in protecting the City of Naples eastern Golden Gate wellfield by improving groundwater recharge. The project includes a combination of spreader channels, canal plugs, road removal and pump stations.

The Site 1 Impoundment project was authorized under Section 1001(16) of the Water Resources Development Act of 2007. It includes: (1) 1,800-acre site with a 1,660-acre project footprint, approximately eight foot deep above ground impoundment, (2) a 600 cfs inflow pump station, (3) discharge gated culvert, (4) one combined service / auxiliary non-gated spillway and one auxiliary non-gated spillway, and (5) seepage control canal with an associated 30 cfs seepage pump station (with one redundant 15 cfs pump) and overflow weir. An additional gated culvert structure is designed to control stages in L-36 Borrow Canal and North Springs Improvement District discharges into the Hillsboro Canal. Recreation features include boardwalks, viewing platforms, picnic shelters, canoe launches and information kiosks at two sites within the footprint.

DESCRIPTION CON'T:

The Indian River Lagoon (IRL) was authorized under Section 1001(14) of the Water Resources Development Act of 2007. It is identified as the most biologically diverse estuarine system in all of North America. The Project Implementation Report (PIR) recommends a plan in Martin, St. Lucie, and Okeechobee Counties that will reduce the damaging effects of watershed runoff, reduce high peak discharges, reduce nutrient loads, provide water quality benefits to control salinity, pesticides, and other pollutants presently discharged to the estuary, and provide water supply for agriculture to offset reliance on the Floridan Aquifer. The plan includes 170,000 acre-feet of reservoir storage (C-44 Reservoir, C-23/24 North/South Reservoirs and C-25 Reservoir), and storm water treatment areas (C-44 West/East, C-23, C-24, and C-25), and provides storage on 92,000 acres of natural storage areas (Allapattah, Palmar, and Cypress Creek). The plan may also include steps to remove up to 7,900,000 cubic yards of muck from the St. Lucie River and Estuary.

The Kissimmee River basin is approximately 3,000 square miles in size. The Kissimmee River Restoration project has two component parts; the upper basin, referred to as the Headwaters Revitalization, and the lower basin. The upper basin portion of the project consists of water regulation schedule modifications, canal and structure improvements, and land acquisition. This will result in environmental benefits in the upper chain of lakes and in the lower basin. More natural fluctuations of water levels will enhance the peripheral marshes of the upper lakes, which in turn will also help to improve the water quality entering Lake Okeechobee. Reestablishing a more natural timing of flows to the lower basin will assist in the restoration of the Kissimmee River ecosystem. Structural improvements will include enlargements of existing canals and existing water control structures. The Kissimmee River Restoration project is restoring natural flooding in portions of the historic floodplain to reestablish wetland conditions. Construction will include backfilling approximately 22 miles of the C-38 canal, excavating approximately 9 miles of new river channel, and removing 2 water control structures and locks in the backfilled sections. The project also includes acquisition of fee title for lands within the 5-year-floodplain and acquisition of flowage easements for lands between the five-year-flood line and the 100-year-flood line.

The Everglades and South Florida Restoration Project separable elements must meet the following criteria: be within the C&SF Project and its near shore waters; provide immediate, independent, and substantial ecosystem restoration, protection, and preservation benefits; cost less than $25 million in Federal funds, be consistent with the Governor's Commission's Conceptual Plan; and have a local sponsor to contribute a minimum of 50% of the total project cost. The Water Resources Development Act of 2007 amended authorization for the Seminole Big Cypress project to increase the Federal project cost from $25M to $30M.

The Modified Water Deliveries to Everglades National Park (MWD) involves construction of certain modifications to the C&SF Project water management system and related operational changes to improve water deliveries to Everglades National Park (ENP). The project consists of structural features with the intended purpose of improving the conveyance of water between Water Conservation Areas (WCA) north of ENP and the Shark River Slough within the Park. It also involves acquisition of structures and provides flood mitigation to remaining structures in the 8.5 Square Mile Area (SMA), a residential area adjacent to the Park expansion boundary in East Everglades. For management purposes, the project is described in four categories: 8.5 SMA, Conveyance and Seepage Control, Tamiami Trail (Eastern Segment), and Project Implementation Support (ENP requirements, Experimental Program, Cape Sable Seaside Sparrow Emergency, Combined Structural and Operational Plan, Environmental Monitoring, and Osceola Camp).

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1960, 1962, 1965, and 1968; Authorization in 1970 under Section 201 of the Flood Control Act of 1965, and the Water Resources Development Acts of 1986, 1988, 1990, 1992,1996, 1999, 2000 and 2007. The Modified Water Deliveries to Everglades National Park was authorized under the Everglades Expansion Act of 1989 (PL 101-229). PL 101-229 specifically directs the Secretary of the Army, in consultation with the Secretary of Interior, to construct modifications to the C&SF Project to improve water deliveries to ENP.

REMAINING BENEFIT – REMAINING COST RATIO: NA

TOTAL BENEFIT - COST RATIO: NA

INITIAL BENEFIT – COST RATIO: NA

BASIS OF BENEFIT – COST RATIO: NA

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost (CoE)			$4,879,420,000		Misc. Completed Works	100	Oct 1992
Programmed Construction		$4,261,023,000			CERP, Plan and Design	32	TBD
Unprogrammed Construction		618,397,000			West Palm Beach	98	TBD
					C-111 (South Dade)	67	TBD
Estimated Federal Cost (OFA)			389,708,000		Manatee Pass Gates	93	TBD
Programmed Construction		389,708,000			E Coast Canal	100	Sep 2004
					Western C-111	100	Sep 2005
Estimated Non-Federal Cost			4,093,341,000		Seminole Big Cypress	70	TBD
Programmed Construction		3,765,025,000			Ten Mile Creek *	TBD	TBD
Cash Contributions	$ 314,744,000				Tamiami Trail (Western Culverts	TBD	TBD
Other Costs	3,450,281,000				Florida Keys Carrying	100	Dec 2004
Unprogrammed Construction		328,316,000					
Cash Contributions	176,860,000				Lake Okeechobee Water Retention	100	Apr 2006
Other Costs	151,456,000			Southern	CREW	TBD	TBD
Estimated Unallocated Cost					Lake Trafford	TBD	TBD
Programmed Construction					Kissimmee	70	TBD
					Mod Waters Del	TBD	TBD
					Picayune Strand **	50	TBD
Total Estimated Programmed Construction Cost			$8,415,756,000				
Total Estimated Unprogrammed Construction Cost			946,713,000				
Total Estimated Project Cost			$9,362,469,000	1/			
Allocations to 30 September 2007			1,230,492,000	Entire	Project	33	TBD
Allocations for FY 2008			127,171,000				
Allocations for FY 2009			121,352,000	2/			
Recovery Act Allocation To Date			56,516,000				
Conference Allowance for 2010			180,064,000				
Allocation for FY 2010			177,964,000	3/			
Allocations through FY 2010			1,713,495,000	35%			
Allocation Requested for FY 2011			180,000,000	39%			
Programmed Balance to Complete after FY 2011			2,367,528,000				
Unprogrammed Balance to Complete after FY 2011			618,397,000				

* Additional construction required.

** COE will initiate construction of ongoing work.

Division: South Atlantic   District: Jacksonville   South Florida Ecosystem Restoration

01 February 2010

SUMMARIZED FINANCIAL DATA CONT:

1/ Includes only features authorized for construction to date.
2/ Reflects a decrease from amount appropriated due to the reprogram of $4.3M to the Hoover Dike Project. $1.8M was for construction contract claims and $2.5M was used to fully fund award of the Quarry Fill Construction contract.
3/ Reflects a decrease from amount appropriated due to the reprogram of $2.1M to the Upper St Johns project (located outside SFER program boundaries and previously funded as a component of the C&SF project). Total allocation for FY10 was $180.064M.

PHYSICAL DATA

Pumping Plants (Number)	38	Locks (Number)	25
Floodway Control & Diversion Structures (Number)	235	Canals (Miles)	999
Relocations-Highways (Bridges)	2	Levees (Miles)	720
Relocations-Railroads (Bridges)	58	Bridge	7
Canals - New River Channel	9		
Water Control Structures Removal	2		

JUSTIFICATION:

The Central and Southern Florida Project: The C&SF project was originally authorized and designed as a flood control project in response to the maximum flood of record in 1947. Existing damages, without the project, were $59,693,000 ($366,903,000 at 1 October 1989 price levels). The 1947 flood frequency averages 1 in 25 years over the project area, with an average duration of 70 days. Minor floods occur almost yearly in the project area and major floods occur frequently. This situation is aggravated by wet antecedent conditions followed by heavy seasonal rainfall. The average degree of protection provided by the completed project is about a 10-year flood frequency protection. Approximately 2,853,700 acres are protected. This encompasses 2,765,100 agricultural acres and 88,600 urban acres. The present value of property subject to flood damages is about $12.3 billion. Property types include residential, commercial, industrial, public, and agricultural.

Average annual damages without the project would be $110,580,000 and $22,536,000 with the project. Damages attributable to urban property are 16.7 percent and 83.3 percent are attributable to rural property. The proportion of average annual damages prevented is 36.8 percent to existing development and 63.2 percent to future development.

Under Public Law 90-483 (River and Harbor Act of 1968), additional project features for the purpose of water supply were added to the Central and Southern Florida project. The storage capacity of the entire project is 2,953,000 average annual acre-feet divided into approximately 1,600,000 acre-feet for urban use by 2020 and 740,000 acre-feet for agricultural use by 2020. The Everglades National Park receives virtually its entire source of water (other than direct rainfall) from the Central and Southern Florida Project. The pumping rate for irrigation of 590 square miles would yield approximately 917,850 acre-feet per year for agricultural use. Recurrent drought conditions with resultant low flows require supplemental irrigation to ensure adequate crop yields.

JUSTIFICATION CONT:

Average annual benefits of the CS&F Project, excluding restoration projects are as follows:

Annual Benefits	Amount
Flood Control	$ 235,213,000
Municipal and Industrial Water Supply	25,664,000
Agricultural Water Supply	27,614,000
Recreation 11,109,0	00
Fish and Wildlife	238,000
Area Redevelopment	3,012,000
Total $	302,850,000

Restoration projects in the Central and South Florida Project are being conducted under a variety of authorities. Examples include Picayune Strand, which restores 55,000 acres of wetlands and is a key component to connect state and federal preserve lands for plant and animal species as well as enhancement to adjacent wetland habitats; the Indian River Lagoon South project moderates unnatural salinity changes which cause detrimental effects to estuarine communities; the Site 1 Impoundment Project reduces seepage losses from the natural system and providing habitat improvement, while shifting consumptive water demands off of Loxahatchee National Wildlife Refuge (NWR) and Lake Okeechobee; the West Palm Beach Canal (C-51) project improves the quality of water entering Loxahatchee NWR & Lake Worth Lagoon as well as reducing freshwater pulse flows which adversely affect habitat in Lake Worth Lagoon.

The Modified Water Deliveries to Everglades National Park and C-111 (South Dade) Projects: The Corps is working in stages to restore natural hydrological conditions in Everglades National Park (ENP). Public Law 90-483 and Public Law 101-229 (Everglades National Park Protection and Expansion Act) authorized modifications to the C&SF project for environmental restoration in the C-111 basin and Shark River Slough. The C-111 (South Dade) effort will help restore natural hydrologic conditions in Taylor Slough within Everglades National Park by providing immediate improvement in flow between upper Everglades Marsh (WCA 3a) and ENP which directly improves habitat for endangered species. Modified Water Deliveries will take steps to restore natural hydrological flows to Shark River Slough in the Park. In addition, the Tamiami Trail portion of MWD, provides immediate improvement in flow from north across Tamiami Trail (US Hwy 41) to south into ENP which directly improves habitat for endangered species. The Corps will evaluate the success of these projects, and incorporate the lessons learned into implementation efforts conducted under the WRDA 2000 Comprehensive Everglades Restoration Plan (CERP) authority with further steps to improve water deliveries to the park.

Due to a significant increase in the costs of the option selected in November 2005 for the Tamiami Trail (Eastern Segment) feature of the Modified Water Deliveries Project, the Corps completed a Limited Reevaluation Report (LRR) to re-examine prior reports and environmental documentation associated with this feature in an effort to re-evaluate the immediate steps to increase flows of water under the highway and into the Park. The Integrated LRR and Environmental Assessment was approved by the Assistant Secretary of the Army for Civil Works on 1 August 2008.

JUSTIFICATION CONT:

Everglades and South Florida Restoration Project: WRDA 1996 authorized implementation of the Everglades and South Florida Restoration Project in order to provide immediate, independent, and substantial ecosystem restoration, protection and preservation benefits. The projects were justified on the basis of those benefits. Florida Keys Carrying Capacity Study, East Coast Canal Structure and Western C-11, and Lake Okeechobee Water Retention and Phosphorus Removal projects have been completed. The Ten Mile Creek project, as originally planned, was physically completed in 2006. However, prior to turnover of the project, a determination will need to be made as to whether additional work may need to be performed. The Seminole Tribe Water Conservation Project located on the Big Cypress Reservation consists of building conveyance canals that will feed newly constructed impoundments. The impoundments function as natural habitats while improving water quality. The water flows from the Big Cypress Reservation and in the Big Cypress National Preserve. Added benefits for the Reservation include storage of irrigation water and reduced flood severity.

Kissimmee River Restoration Project: Local water resource development of the Kissimmee River began in the late 1800's. In the 1960's, the river was channelized as part of the comprehensive Central and Southern Florida Project. Although the project has provided for navigation and reduced flood damages as intended, it also resulted in long-term degradation of the natural ecosystem. The 103-mile river that historically meandered across and inundated about 35,000 acres of wetlands over a broad flood plain was reduced to a 56-mile canal that has successfully contained almost all flows since its completion. The channelization coupled with the modifications of the Lower Basin tributary watersheds and efficient control of floodwaters and regulation of inflows from the Upper Basin significantly altered hydrologic characteristics of the ecosystem. Project formulation and scoping was based on the most cost-effective plan that would meet fish and wildlife resources objectives for restoring ecological integrity. Completion of the project will result in the restoration of 52 miles of river; 27,000 acres of wetlands; improved water quality characteristics for the Kissimmee River; and restored conditions for over 300 fish and wildlife species.

FISCAL YEAR 2010: Fiscal Year 2010 funds for Kissimmee River will be used to initiate construction on the CSX Railroad bridge, the Pool D Oxbow, and the dredging of the of the C-37 canal. Plans and specifications will continue on features for future construction. Regularly appropriated funds will be used in conjunction with the American Recovery Reinvestment Act (ARRA) funds for construction of the C-37 dredging.

Funding for the Everglades & South Florida program will be used to initiate construction of Basin 4 features of the Seminole Big Cypress project and complete design of Basins 2 and 3. Funds will also be used to initiate a Post Authorization Change (PAC) Report for the Ten Mile Creek project and continue preventative maintenance of the project site.

Funding for the Central and Southern Florida project include: Comprehensive Everglades Restoration Plan (CERP): Continue Project Implementation Reports (PIR) and Pilot Project Design Reports (PPDR), to include completion of the C-43 Caloosahatchee West Basin Reservoir PIR and the L-31 Seepage Management Pilot project PPDR; initiate construction of the Picayune Strand Merritt pump station (using regularly appropriated and ARRA funds), the Faka Union pump station (using regularly appropriated funds), the first contract for the Site 1 Impoundment project (using ARRA funds), and the L-31 Pilot project (using regularly appropriated and ARRA funds); continue plans and specifications on Indian River Lagoon South, and remaining features on Picayune Strand and Site 1 Impoundment; initiate design/build of the Melaleuca Eradication project; continue design, installation and testing on the ongoing Pilot projects; continue the C-111 Spreader Canal Design Test; continue system wide monitoring. Construction funds were appropriated to the Indian River Lagoon South project in FY10 in preparation for award of the first contract in FY 2011. West Palm Beach Canal: continue Periphyton Stormwater Treatment Area (PSTA) contract and repair work on the S-375 and S-365. C-111 (South Dade): continue design of Plans & Specifications on remaining features, continue interim testing of pump station 332C. Manatee Pass Gates: complete installation of manatee protection gates.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Central and Southern Florida

Continue Construction on the CERP Picayune Strand	$ 1,000,000
Continue Construction on the CERP Indian River Lagoon South	16,865,000
Continue Construction on CERP Site 1 Impoundment	32,606,000
Continue Construction on C-111 (South Dade)	31,690,000
Continue Installation and Testing of the Pilot Projects	1,573,000
Continue Construction for PSTA monitoring for West Palm Beach Canal	2,000,000
Engineering and Design for CERP Picayune Strand	1,000,000
Engineering and Design for CERP Indian River Lagoon South	400,000
Engineering and Design for CERP Site 1 Impoundment	200,000
Engineering and Design for West Palm Beach Canal	500,000
Engineering and Design for C-111 (South Dade)	3,175,000
Engineering and Design for Comprehensive Everglades Restoration Plan (CERP), includes Adaptive Assessment and Monitoring	53,891,000
Construction Management for CERP Picayune Strand	1,000,000
Construction Management for CERP Indian River Lagoon South	1,600,000
Construction Management for CERP Site 1 Impoundment	2,520,000
Construction Management for C-111 (South Dade)	2,310,000
Subtotal	$ 152,330,000

Kissimmee

Initiate Construction of U-Shaped Weir	$ 19,000,000
Engineering During Construction	500,000
Planning, Engineering, and Design/Monitoring	2,000,000
Construction Management	1,000,000
Subtotal	$ 22,500,000

FISCAL YEAR 2011 CONT:

Everglades and South Florida Ecosystem Restoration

Initiate Construction Seminole Big Cypress Basins 2 & 3	$ 3,370,000
Preventative Maintenance of the current Ten Mile Creek structure	1,000,000
Construction Management	800,000
Subtotal	$ 5,170,000
Total	$180,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in specific authorizing legislation and the Water Resources Development Act of 1986, 1996, 2000 and 2007 as applicable, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
West Palm Beach Canal		
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 12,711,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,400,000	
Pay 12.8 percent of the separable costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of facilities.	21,389,000	289,800
Total Non-Federal Costs	$ 35,500,000	$ 289,800
C-111 (South Dade)		
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 118,422,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	330,000	
Pay one-half of the cost of the project assigned to flood control and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	76,748,000	845,000
Total Non-Federal Costs	$ 195,500,000	$ 845,000

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Manatee Pass-Through Gates		
Pay applicable percentage based upon authorized cost share for each particular project.	$ 2,600,000	
Total Non-Federal Costs	$ 2,600,000	
Comprehensive Everglades Restoration Plan (CERP)		
Provide lands, easements, rights of way, and dredged material disposal areas.	1,592,273,000	
Pay one-half of the cost of the project assigned to flood control and bear one half of the cost of operation, maintenance, repair, rehabilitation, and replacement of (CERP) facilities.	1,372,757,000	
Total Non-Federal Costs	$ 2,965,030,000	
Completed C&SF Works		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	$ 176,459,000	
Cash Contribution/WIK	232,241,000	
Total Non-Federal Costs Total	$ 408,700,000	
CERP: Site 1 Impoundment		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	$ 4,693,000	
Cash Contribution/WIK	62,984,000	778,700
Total Non-Federal Costs Total	$ 67,677,000	$ 778,700

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
CERP: Indian River Lagoon South		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	$ 878,405,000	
Cash Contribution/WIK	129,475,000	$ 6,144,700
Total Non-Federal Costs Total	$1,007,880,000	$ 6,144,700
CERP: Picayune Strand		
Provide lands, easements, rights of way, and modify or relocate buildings, utilities, roads, bridges and other facilities.	$ 156,000,000	
Cash Contribution/WIK	77,800,000	$ 310,000
Total Non-Federal Costs Total	$ 233,800,000	$ 310,000
East Coast Canal Structures		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 0	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	1,796,000	$ 150,000
Total Non-Federal Costs	$ 1,796,000	$ 150,000

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Ten Mile Creek		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 5,074,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	23,426,000	$ 660,000
Total Non-Federal Costs	$ 28,500,000	$ 660,000
Tamiami Trail (Western Culverts)		
Provide; with credit toward the non-Federal 84 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 0	
Modify or relocate; with credit toward the non-Federal 84 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 68 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	19,326,000	$ 250,000
Total Non-Federal Costs	$ 19,326,000	$ 250,000
Seminole Big Cypress		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 7,500,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay 50% costs of operation, maintenance, repair, rehabilitation, and replacement.	22,500,000	$ 600,000
Total Non-Federal Costs	$ 30,000,000	$ 600,000

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Florida Keys Carrying Capacity		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 0	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	3,000,000	
Total Non-Federal Costs	$ 3,000,000	

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Lake Okeechobee Water retention & Phosphorus Removal		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 3,077,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	8,120,000	$ 364,000
Total Non-Federal Costs	$ 11,197,000	$ 364,000

NON-FEDERAL COST CONT:

Requirements of Local Cooperation	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Southern CREW		
Provide; with credit toward the non-Federal 50 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 29,000,000	
Modify or relocate; with credit toward the non-Federal 50 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 50 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	4,040,000	$ 175,000
Total Non-Federal Costs	$ 33,040,000	$ 175,000

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Lake Trafford		
Provide; with credit toward the non-Federal 95 percent share of project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 1,342,000	
Modify or relocate; with credit toward the non-Federal 95 percent share of project costs; utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	0	
Pay 82 percent of the costs allocated to environmental restoration, and pay all costs of operation, maintenance, repair, rehabilitation, and replacement.	27,099,000	$ 70,000
Total Non-Federal Costs	$ 28,441,000	$ 70,000

OTHER FEDERAL AGENCIES (OFA):

	Payments During Construction, and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation, and Replacement Costs
Modified Water Deliveries to Everglades National Park Provide; with credit toward DoI's share of the project costs; all lands, easements, rights of way, and excavated or dredged material disposal areas.	$ 101,409,000	
Pay share of project costs.	235,391,000	
Total OFA Costs	336,800,000	

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STATUS OF LOCAL COOPERATION: Assurances of local cooperation have been accepted from the local sponsor, the South Florida Water Management District, for all works authorized under the Central and Southern Florida project. The Project Cooperation Agreement (PCA) for the C-111 (South Dade) separable element was executed with the South Florida Water Management District in January 1995. A Post Authorization Change document is being drafted for approval to support an amendment to the existing PCA. The Design Agreement for the South Florida Water Management District (SFWMD) segment of the Comprehensive Everglades Restoration Plan (CERP) was signed on 12 May 2000. Additional Design Agreements for CERP features maybe executed with Seminole Tribe of Florida, the Miccosukee Tribe of Florida, the Florida Department of Environmental Protection and Miami-Dade County.

The Kissimmee Project Cooperation Agreement reflects the cost sharing outlined in House Document 102-286 dated April 7, 1992 was executed with the South Florida Water Management District (SFWMD) in March 1994. The local sponsor will be required to provide a cash contribution for project costs in excess of land credit (reflecting credit for lands, easements, rights of way, relocations, and disposal areas).

PCAs were executed 07 January 2000 for East Coast Canal Structures, Tamiami Trail Culverts, Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford. A Feasibility Cost Share Agreement (FCSA) was executed Dec 1998 for Florida Keys Carrying Capacity. Local sponsors include: South Florida Water Management District (SFWMD), Seminole Tribe of Florida, and the Florida Department of Community Affairs (DCA).

PCAs were executed with the South Florida Water Management District September 1994 and July 2001 for the Modified Water Deliveries Project to implement modifications to the C&SF Project to improve water deliveries into Everglades National Park. PCA Amendment No. 2 was executed August 2008 for Tamiami Trail Modifications.

STATUS OF LOCAL COOPERATION CONT:

The CERP Master Agreement was executed on 13 August 2009 between the Corps and the South Florida Water Management District. A Project Partnering Agreement (PPA) was executed on the CERP: Picayune Strand project in August 2009 with the South Florida Water management District. Five Pre-Partnership Credit Agreements (PPCA) were executed with the South Florida Water management District in August 2009: Picayune Strand, Indian River Lagoon South, C-43 Caloosahatchee River West Basin Storage Reservoir, C-111 Spreader Canal, and the Biscayne Bay Costal Wetlands projects. The CERP Design Agreement was amended on 13 August 2009 to incorporate the Master Agreement policy. The policy allows for the yearly CERP 50/50 cost share balance to include design and construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps cost estimate for the Corps' share of the overall restoration effort) cost estimate of $4,879,420,000 is an decrease of $7,728,000 from the latest estimate ($4,887,148,000) submitted to Congress (FY 2010). The changes include the following:

Item	Amount
Price Escalation of Construction Features	$ 68,473,000
Schedule Changes	10,254,000
Design Changes	2,733,000
MWD: Post Contract Award Adjustment	(93,208,000)
Scope Changes	4,020,000
Total	$ (7,728,000)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT:

The latest Programmatic Environmental Impact Statements for Central and Southern Florida project was the Comprehensive Review Study in April 1999. NEPA documents have also been completed for Indian River Lagoon South, Picayune Strand and Site 1.

The final Environmental Impact Statement for the Kissimmee project was filed with EPA on April 5, 1992. A supplement to the Environmental Impact Statement was integrated into the Upper Basin project modification report.

NEPA documents were prepared prior to execution of the PCA for East Coast Canal Structures, Tamiami Trail Culverts (Western Culverts), Western C-11, Seminole Big Cypress, Southern Crew, Lake Okeechobee Water Retention, 10-Mile Creek, and Lake Trafford.

OTHER INFORMATION: Funds to initiate preconstruction planning and construction on the Central and Southern Florida project were appropriated in FY1950.

The Everglades National Park Protection and Expansion Act, signed 13 December 1989, authorized construction of works required to take steps to improve water deliveries to Shark River Slough in Everglades National Park, construction of flood mitigation works for the residential area in the East Everglades, and acquisition of 107,600 acres of privately owned wetlands in the East Everglades. The Department of the Interior and the State of Florida acquired the lands included in the ENP expansion area and the Secretary of the Army has responsibility for constructing all project modifications. Under the initial implementation plan, funds were appropriated to the National Park Service and transferred to the Corps of Engineers for this purpose. From FY2006 to FY2008, Congress has provided funding for this project to both the National Park Service and the Corps of Engineers. The construction of the Tamiami Trail bridge and roadway was initiated in FY 2010.

The Kissimmee Restoration Project was authorized by the Water Resources Development Act of 1992. The project cooperation agreement was executed in March 1994. Engineering and design and construction are underway. Construction was initiated in Fiscal Year 1997. A Post Authorization Change is being developed to address increased project costs that can be used to support a project reauthorization . It is estimated that the project's Section 902 Limit will be exceeded in FY 2012.

OTHER INFORMATION CONT:

The Water Resources Development Act of 1992 authorizes the Chief of Engineers to review the Central and Southern Florida project to determine whether modifications to the existing project are advisable at the present time due to significantly changed physical, biological, demographic, or economic conditions, with particular reference to modifying the project or its operation for improving the quality of the environment, improving protection of the aquifer, and improving the integrity, capability, and conservation of urban water supplies affected by the project or its operation. The central organizing theme of the Comprehensive Restudy was the restoration of the South Florida ecosystem while accommodating other demands for water and related land resources in south Florida. Recognizing the complexity of ecological restoration and the extensive interaction between the ecosystem and other uses of water and related land resources, oversight of the reconnaissance level study effort was provided by the interagency South Florida Ecosystem Restoration Task Force, which continues to provide policy guidance, study coordination, and appropriate agency participation. The Water Resources Development Act of 1996 (Section 528) required that a Comprehensive Restudy feasibility report be submitted to Congress, along with a Programmatic Environmental Impact Statement, in July 1999. The Final Integrated Feasibility Report and Programmatic Environmental Impact Statement were submitted to Congress on 01 July 1999. The report provided a Comprehensive Everglades Restoration Plan (CERP). The CERP provided a conceptual framework for restoring the South Florida ecosystem, including the Everglades. Congress approved this plan in WRDA 2000. The Energy and Water Appropriations Act of FY 2000, Public Law 106-50 authorized funds to initiate design of elements of the CERP.

The Indian River Lagoon South Feasibility Study was initiated in 1996. This study evaluated potential modifications to the Central and South Florida Project for ecological restoration of Indian River Lagoon ecosystem. A final feasibility report, which included components of the CERP, was submitted to HQUSACE in FY02. The Project Implementation Report (PIR), required by WRDA 2000, for Indian River Lagoon South was completed August 2004. A Chief's Report on the PIR was signed 04 August 2004. Construction was authorized in WRDA 2007.

The Picayune Strand Project Implementation Report, which is a component of the Comprehensive Plan, was completed in December 2004. A Chief's Report on the PIR was signed on 15 September 2005. Construction was authorized in WRDA 2007. Construction was initiated with funds provided by the non-Federal sponsor and would continue with the funds requested for FY 2009. Specifically, the local sponsor, South Florida Water Management District, completed construction of some of the road demolition and some plugging of canals. The Corps will complete the remaining construction of 3 pump stations, road removal and plugging of canals. FY 2009 regularly appropriated and ARRA funds were used to award the first pump station, the Merritt pump station, in October 2009 and it is scheduled for completion in three years. The second pump station is scheduled to be awarded in late FY 2010. This project involves the restoration of natural flow across roughly 90 square miles in western Collier County, which were drained in the early 1960's. The project will restore wetlands in Picayune Strand (an abandoned real estate formerly known as Southern Golden Gates Estates) and in adjacent public lands by reducing over drainage while restoring a natural and beneficial sheetflow of water to the Ten Thousand Islands National Wildlife Refuge. Additionally, the project will benefit the endangered Florida panther, and improve wetland/upland mosaic habitat west of the Everglades.

OTHER INFORMATION CONT:

The Site 1 Impoundment Project Implementation Report, which is a component of the Comprehensive Plan, was completed in August 2006. A Chief's Report on the PIR was signed on 19 December 2006. Construction was authorized in WRDA 2007. The Project Partnership Agreement is scheduled for execution in May 2010. The first construction contract is scheduled for award in September 2010 using ARRA funds.

The Master Agreement, executed 13 August 2009, includes a policy decision that for future CERP projects (except Picayune Strand, Indian River Lagoon South and Site 1 Impoundment) that the Corps will use the longstanding national policy of using "fair market value" for land valuation and crediting purposes.

A Project Implementation Report for Broward County WPA, which is a component of the Comprehensive Plan, was completed in April 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. A final report will be prepared based on new CERP land valuation guidance and is scheduled to be completed in FY 2010.

The Caloosahatchee River (C-43) West Basin Storage Reservoir Project Implementation Report, which is a component of the Comprehensive Plan, was completed in September 2007. However the final report was on hold pending a decision on the CERP land valuation policy, which was resolved in August 2009. A final report was prepared based on new CERP land valuation guidance and submitted to Headquarters November 17, 2009. The Chief's Report is scheduled to be signed in early 2010.

The Water Resources Development Act of 2000 authorized the Comprehensive Everglades Restoration Plan as a conceptual framework for modifications and operational changes to the Central & Southern Florida Project. In addition, specific authorization was provided for 10 projects totaling $1.1 billion (including $100 million for adaptive assessment and monitoring programs) and 4 pilot projects totaling $69 million, and to allow for implementation of projects under a programmatic authority, not to exceed $206 million. Two additional pilot projects and part of the Comprehensive Everglades Restoration Plan were authorized in the Water Resources Development Act of 1999 for $29 million.

The Water Resources Development Act of 2007 provided authorization for the following three CERP projects: Picayune Strand, Indian River Lagoon South and Site 1 Impoundment. It also provided a new authorized project cost for the Hillsboro and Lake Okeechobee ASR Pilot and the Caloosahatchee ASR Pilot projects; and a provision for the establishment of Section 902 limits for the Programmatic Authority projects.

The Everglades and South Florida Restoration project authorization limit of a total federal funding of $75 million was increased to $95 million in WRDA 2007. It also provided for an increased project Federal funding cap on the Seminole Big Cypress project from $25 million to $30 million. The local sponsors have elected, on some projects, to fund more than 50% of project costs to complete those projects. A Post Change Report will be prepared for the Ten Mile Creek project which has reached the authorized $25 million Federal funding cap. The constructed facility will be maintained in a minimum caretaker status to protect the property for health and safety.

The Enacted Energy and Water Development Appropriations Act of 2010 included a general provision to increase the Everglades and South Florida Ten Mile Creek federal funding cap by $3.5 million, an increase from $25M to $28.5M, to complete a Post Authorization Change and continue preventative maintenance.

SUMMARIZED FINANCIAL DATA

C&SF Miscellaneous Completed Work

Estimated Federal Cost		934,900,000
Estimated Non-Federal Cost		408,700,000
Cash Contributions	232,241,000	
Other Costs	176,459,000	
Total Estimated Project Cost		$1,343,600,000

Modified Water Deliveries to Everglades National Park

Estimated Federal Cost (COE)		77,493,000
Programmed Construction	77,493,000	
Unprogrammed Construction	0	
Estimated Federal Cost (OFA)		336,800,000
Programmed Construction	336,800,000	
Unprogrammed Construction	0	
Estimated Non-Federal Cost		156,000
Programmed Construction	156,000	
Unprogrammed Construction	0	
Total Estimated Programmed Construction Cost		$ 414,449,000
Total Estimated Unprogrammed Construction Cost		0
Total Estimated Project Cost		$ 414,449,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable
.SUMMARIZED FINANCIAL DATA (Continued)

Division: South Atlantic District: Jacksonville South Florida Ecosystem Restoration

01 February 2010

SUMMARIZED FINANCIAL DATA (Continued)

C-111 (South Dade)

Estimated Federal Cost			$ 195,500,000
Programmed Construction		195,500,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			195,500,000
Programmed Construction		195,500,000	
Cash Contributions	76,343,000		
Other Costs	119,157,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$ 391,000,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			$ 391,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

Division: South Atlantic District: Jacksonville South Florida Ecosystem Restoration

01 February 2010

SUMMARIZED FINANCIAL DATA (Continued)

West Palm Beach Canal

Estimated Federal Cost (COE)			$ 237,000,000
Programmed Construction		236,500,000	
Unprogrammed Construction		0	
Estimated Federal Cost (OFA)			46,000,000
Programmed Construction		46,000,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			35,500,000
Programmed Construction		35,500,000	
Cash Contributions	21,389,000		
Other Costs	14,111,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$ 318,500,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			$ 318,500,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Manatee Pass-Through Gates

Estimated Federal Cost			$ 17,400,000
Programmed Construction		17,400,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,600,000
Programmed Construction		2,600,000	
Cash Contributions	2,600,000		
Other Costs	0		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$ 20,000,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			$ 20,000,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Comprehensive Everglades Restoration Plan

Estimated Federal Cost			$ 2,998,480,000
Programmed Construction		2,998,480,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			2,965,030,000
Programmed Construction		2,965,030,000	
Cash Contributions	14,872,000		
Other Costs	2,950,158,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$ 5,963,510,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			$ 5,963,510,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable

SUMMARIZED FINANCIAL DATA (Continued)

Lake Okeechobee		
Estimated Federal Cost		$ 11,236,000
Estimated Non-Federal Cost		11,197,000
Cash Contributions	5,970,000	
Other Costs	5,227,000	
Total Estimated Project Cost		$ 22,433,000
Southern CREW		
Estimated Federal Cost		$ 281,000
Estimated Non-Federal Cost 1/		33,040,000
Cash Contributions	3,462,000	
Other Costs	29,578,000	
Total Estimated Project Cost		$ 33,321,000
East Coast Canal Structures		
Estimated Federal Cost		$ 1,902,000
Estimated Non-Federal Cost		1,796,000
Cash Contributions	1,571,000	
Other Costs	225,000	
Total Estimated Project Cost		$ 3,698,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Western C-11 Basin

Estimated Federal Cost		$ 9,100,000
Estimated Non-Federal Cost		8,992,000
Cash Contributions	8,389,000	
Other Costs	603,000	
Total Estimated Project Cost		$ 18,092,000

Seminole Big Cypress

Estimated Federal Cost		$ 30,000,000
Estimated Non-Federal Cost 1/		30,000,000
Cash Contributions	14,001,000	
Other Costs	15,999,000	
Total Estimated Project Cost		$ 60,000,000

Ten-Mile Creek

Estimated Federal Cost		$ 28,500,000
Estimated Non-Federal Cost		28,500,000
Cash Contributions	15,305,000	
Other Costs	13,195,000	
Total Estimated Project Cost		$ 57,000,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Tamiami Trail (Western Culverts)

Estimated Federal Cost		$ 6,755,000
Estimated Non-Federal Cost 1/		19,326,000
Cash Contributions	0	
Other Costs	19,326,000	
Total Estimated Project Cost		$ 26,081,000

Lake Trafford

Estimated Federal Cost		$ 6,687,000
Estimated Non-Federal Cost 1/		28,441,000
Cash Contributions	0	
Other Costs	28,441,000	
Total Estimated Project Cost		$ 35,128,000

Keys Carrying Capacity

Estimated Federal Cost		$ 3,000,000
Estimated Non-Federal Cost		3,000,000
Cash Contributions	1,500,000	
Other Costs	1,500,000	
Total Estimated Project Cost		$ 6,000,000

1/ Construction assigned to sponsor due to Federal funding cap on Everglades and South Florida program.

SUMMARIZED FINANCIAL DATA (Continued):

Indian River Lagoon South

Estimated Federal Cost		$1,007,880,000
Estimated Non-Federal Cost		1,007,880,000
Cash Contributions	129,475,000	
Other Costs	878,405,000	
Total Estimated Project Cost		$2,015,760,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

Picayune Strand

Estimated Federal Cost		$ 233,800,000
Estimated Non-Federal Cost		233,800,000
Cash Contributions	77,800,000	
Other Costs	156,000,000	
Total Estimated Project Cost		$ 467,600,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

SUMMARIZED FINANCIAL DATA (Continued):

Site 1 Impoundment

Estimated Federal Cost		$ 67,677,000
Estimated Non-Federal Cost		67,677,000
Cash Contributions	62,984,000	
Other Costs	46,693,000	
Total Estimated Project Cost		$ 135,354,000

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

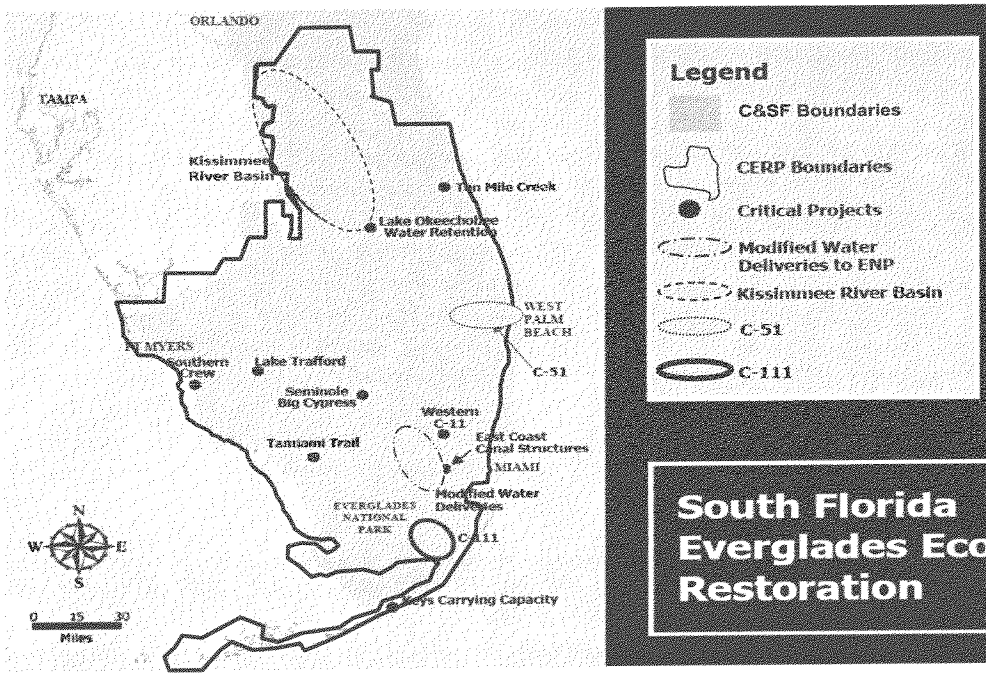
SUMMARIZED FINANCIAL DATA (Continued):

Kissimmee River

Estimated Federal Cost			$ 330,555,000
Programmed Construction		330,555,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			330,555,000
Programmed Construction		330,555,000	
Cash Contributions	96,986,000		
Other Costs	233,569,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		0	
Cash Contributions	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$ 661,110,000
Total Estimated Unprogrammed Construction Cost			0
Total Estimated Project Cost			$ 661,110,000

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable

TOTAL BENEFIT-COST RATIO: Not applicable



South Florida Everglades Ecosystem Restoration

Division: South Atlantic District: Jacksonville South Florida Ecosystem Restoration

01 February 2010

SAD-146

HYDROPOWER

SAD-148

CONSTRUCTION

APPROPRIATION TITLE: Construction - Multiple Purpose Power (Major Rehabilitation).

PROJECT: John H. Kerr Dam and Reservoir, VA & NC (Continuing).

LOCATION: The Kerr Powerhouse is located on the Roanoke River in Mecklenburg County, Virginia, 7 miles east of Boydton, Virginia, 80 air miles southwest of Richmond, Virginia, and 60 air miles north of Raleigh, North Carolina.

DESCRIPTION: The recommended plan involves the rewinding of seven generator units to maximum capacity, replacement of the turbines and main power transformers, and the replacement or refurbishment of key electrical and mechanical peripheral equipment in order to improve the overall reliability of the project, reduce operation and maintenance costs, reduce unscheduled repair costs, and provide additional hydropower capacity and power revenues.

AUTHORIZATION: Flood Control Act of 1944.

REMAINING BENEFIT-REMAINING COST RATIO: 9.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.6 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7 1/8 percent.

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluations contained in the Major Rehabilitation Evaluation Report addendum and transmittal memorandum dated June 1997 at October 1996 price levels. Benefits were brought to current conditions of the power generation facilities and expected alternative costs in January 2005 using information from the Hydropower Design Center, and are reflected in the benefit-to-cost ratios computations.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$96,224,000		Entire Project	94	June 2011
Future Non-Federal Reimbursement			$96,224,000				
Estimated Non-Federal Cost (Ultimate)			$ 0				
Cash Contributions		0					
Other Costs		0					
Reimbursements		$ 96,224,000					
Power	$96,224,000						
Total Estimated Project Cost			$96,224,000				
Allocations to 30 September 2007			$ 45,895,000				
Allocation for FY 2008			13,767,000				
Allocation for FY 2009			14,581,000				
Recovery Act Allocation To Date			0				
Conference Allowance for FY 2010			15,981,000				
Allocation for FY 2010			15,981,000				
Allocations through FY 2010			90,224,000	94			
Allocation Requested for 2011			6,000,000	100			
Programmed Balance to Complete after FY 2011			0				
Unprogrammed Balance to Complete after FY 2011			0				

PHYSICAL DATA

Rewind Generator	7
Replace Turbines	6
Refurbish Turbines	1
Replace Transformers	All

Division: South Atlantic District: Wilmington John H. Kerr Dam and Reservoir, VA & NC

1 February 2010

SAI b

JUSTIFICATION: The John H. Kerr Powerplant, which was initially placed into operation in 1953, was showing signs of excessive wear of the generators, the peripheral equipment and the turbines. This resulted in a loss of efficiency, reduced reliability of the units and lost power output for the units. The recommended plan of improvement includes rewinding the generators to achieve maximum capacity, replacement of the turbines and main power transformers, and replacement or refurbishment of key electrical/mechanical peripheral equipment. The recommended plan improves the powerplant's overall reliability; reduces further degradation of the hydroelectric units, decreases operation and maintenance costs, and increases the power generation capability. The recommended plan was based upon growing concern with project reliability due to malfunctions of the oil circuit breakers in the switchyard, for which repair parts are no longer available and must be custom fabricated; frequent leaks in the raw water piping system, which is in extremely poor condition throughout; and the extremely heavy cavitation observed in the runner, stay ring and discharge ring of Unit Number 5. Average annual benefits for hydroelectric power are $17,485,000.

FISCAL YEAR 2010: The allocated amount of $15,981,000 will be used for power plant rehabilitation, planning, engineering and design and construction management including completion of rehabilitation of Unit Number 5 and initiation of rehabilitation of Unit Number 3.

FISCAL YEAR 2011: The requested amount of $6,000,000 will be applied as follows:

Continue work under contract for rehabilitation of powerplant	$5,000,000
Planning, Engineering and Design	250,000
Construction Management	750,000
Total	$6,000,000

NON-FEDERAL COST: The costs allocable to power are reimbursable, and will be reviewed and adjusted based on construction costs when the project becomes operational.

Requirements of local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities	$96,224,000	$6,043,000

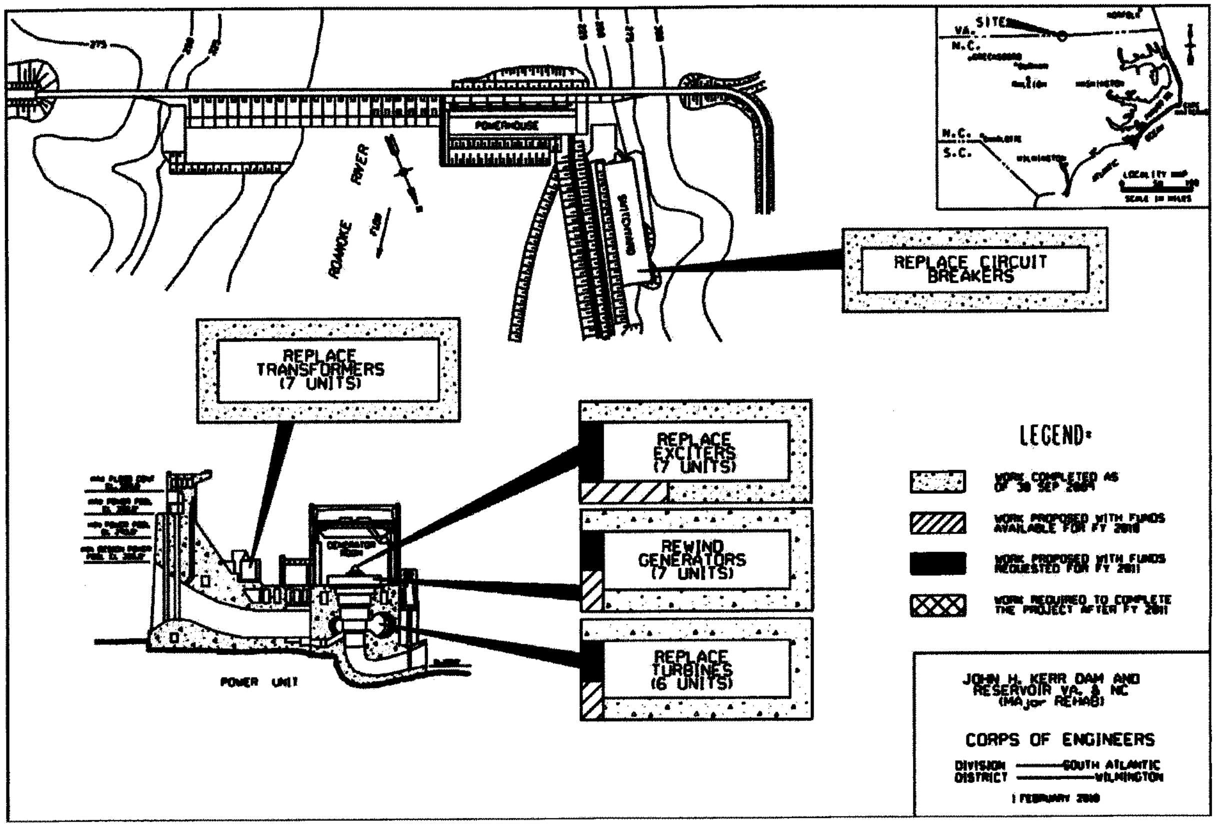
STATUS OF LOCAL COOPERATION: Pursuant to Federal Laws responsibility for repayment of hydropower costs rests with the power-marketing agency, the Southeast Power Administration.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $96,224,000 has increased due to the estimated price to add dissolved oxygen and cooling systems for units 3, 5 and 7 and the increased estimated cost to rehabilitate units 3, 5, and 7 ($6,249,000).

Item	Amount
Post Contract Award and Other Estimating Adjustments	$6,249,000
Total	$6,249,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment and Finding of No Significant Impact was prepared and distributed in December 1996 for public comment. The Finding of No Significant Impact was signed by the District Engineer on 7 February 1997.

OTHER INFORMATION: Construction funds to initiate major rehabilitation were appropriated in FY 2000.


VA.
SITE
N.C.
N.C.
S.C.
LOCALITY MAP
SCALE IN MILES
POWERHOUSE
SWITCHYARD
ROANOKE
RIVER
FLOW
275
REPLACE CIRCUIT BREAKERS
REPLACE TRANSFORMERS (7 UNITS)
REPLACE EXCITERS (7 UNITS)
REWIND GENERATORS (7 UNITS)
REPLACE TURBINES (6 UNITS)
GENERATOR ROOM
POWER UNIT
LEGEND:
WORK COMPLETED AS OF 30 SEP 2009
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
JOHN H. KERR DAM AND RESERVOIR VA. & NC (MAjor REHAB)
CORPS OF ENGINEERS
DIVISION ———SOUTH ATLANTIC
DISTRICT ———WILMINGTON
1 FEBRUARY 2010

Division: South Atlantic District: Wilmington John H. Kerr Dam and Reservoir, VA & NC

1 February 2010

SAD-153

APPROPRIATION TITLE: Construction - Multiple Purpose Power

PROJECT: Richard B. Russell Dam and Lake, Georgia and South Carolina (Continuing)

LOCATION: The project is located on the Savannah River approximately 275 miles above the mouth, 16 miles southeast of Elberton, Georgia and between the existing J. Strom Thurmond and Hartwell Lakes.

DESCRIPTION: The project consists of a concrete gravity-type dam, flanked by earth embankments with a maximum height of 200 feet above the river. The total length of 5,616 feet consists of a 1,884-foot concrete section and embankments of 3,732 feet. The gate-controlled spillway has a design capacity of 80,000 c.f.s. The project includes the installation of 328 megawatts of conventional power completed in January 1986 and 320 megawatts of reversible pumped storage power for a total available capacity of 648 megawatts completed in 1992.

AUTHORIZATION: Flood Control Act of 1966, modified by the Water Resources Development Act of 1976 and the Water Resources Development Act of 1986.

REMAINING BENEFIT - REMAINING COST RATIO: 1.90 to 1 at 7 percent

TOTAL BENEFIT - COST RATIO: 1.9 to 1 at 7 percent.

INITIAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent (FY 1972).

BASIS OF BENEFIT - COST RATIO: Benefits are from the cost allocation study completed in December 1991 at October 1991 price levels.

SUMMARIZED FINANCIAL DATA				ACCUM PCT OF EST FED COST	STATUS (1 Feb 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Total Appropriation Requirement			$642,858,000		Entire Project	99.1%	Dec 2015
Future Non-Federal Reimbursement			$590,583,000				
Estimated Federal Cost (Ultimate)			$ 48,275,000				
Estimated Non-Federal Cost			$592,483,000				
Cash Contributions		1,900,000					
Reimbursements		590,583,000					
Power	590,583,000						
Total Estimated Project Cost			$642,858,000				
Allocations to 30 September 2007			618,380,000				
Allocation for FY 2008			4,770,000				
Allocation for FY 2009			3,544,000				
Recovery Act Allocation To Date			9,168,500				
Conference Allowance for FY 2010			1,526,000				
Allocation for FY 2010			1,526,000				
Allocations thru FY 2010			637,388,500	99.1%			
Allocation Requested for FY 2011			1,000,000	99.3%			
Programmed Balance to Complete after FY 2011			4,469,500				
Un-programmed Balance to Complete after FY 2011			0				

Division: South Atlantic

District: Savannah

Richard B. Russell Dam and Lake, GA & SC

1 February 2010

SAD-155

PHYSICAL DATA

Dam	
Type: Concrete Gravity, flanked by earth embankments	
Maximum Height (Feet)	200
Length	
Concrete Section (Feet)	1,884
Embankments (Feet)	3,732
Spillway	
Type: Gate Controlled	
Design Capacity (c.f.s)	80,000
Lands and Damages (Acres)	53,112
Type: Predominantly timber and Agricultural	
Improvements: Typical farm units	

Relocations-Roads (Miles)	19.5
Railroads (Miles)	9.1
Initial Power Installation	
4 Conventional Units (MW)	82
4 Pump Storage Units (MW)	80
Normal Average Head (Feet)	144
Reservoir Capacity (Acre-feet)	
Flood Control	140,000
Power	126,800
Dead Storage	899,400

JUSTIFICATION: The 648 megawatts installation, including pumped storage, will help meet the increased power requirements and rapid growth demands in this region. The output can be marketed and fully utilized immediately upon project completion in Federal Energy Regulatory Commission (FERC) supply areas 21, 22, and 23. This includes all of South Carolina, most of North Carolina, Georgia, Alabama, and parts of Mississippi and Florida. The FERC has stated repeatedly the need for this power source. This project will be an integral unit of the plan for development of the Savannah River Basin for flood control, navigation, power, and allied purposes. The recreational facilities will serve an area within a large zone of influences surrounding the three-lake complex of J. Strom Thurmond, Hartwell, and Richard B. Russell lakes. Average annual benefits are as follows:

Annual Benefits	Amount
Power	$ 52,995,000
Flood Control	177,000
Recreation	3,597,000
Fish and Wildlife	71,000
Area Redevelopment	4,212,000
Total	$ 61,052,000

FISCAL YEAR 2010: Fiscal Year 2010 funds are being used to continue installation of the Static Start and Main Circuit Breakers with a scheduled completion date of December 2011. Fiscal Year 2009 ARRA funds in the amount of $2,868,500 are being used to complete the Above Ground Cryogenics. The $6,300,000 in Fiscal Years 2009 ARRA funds will be used to design, procure, fabricate and install the Underwater Diffuser System in FY2010.

FISCAL YEAR 2011: Fiscal Year 2011 funds will be used to complete the installation of the Static Start and Main Circuit Breakers. The Above Ground and Underwater Diffuser System will complete the Cryogenic 02 System allowing full pump back capacity and initiation of the final five-year required environmental monitoring.

Required Environmental Monitoring	$1,000,000
Total	$1,000,000

NON-FEDERAL COST: In accordance with Public Law 89-72, agreements for recreation development with the States of Georgia and South Carolina have been executed and were approved by the Secretary of the Army 20 May 1974. The costs allocable to power are reimbursable, and will be reviewed and adjusted, based on construction costs when the project becomes operational.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Capital Cost allocated to power.	$590,583,000	$ 3,557,000
Pay, contribute in kind, or repay (repayment not to exceed 50 years) with interest, one-half of the separable costs allocated to recreation.	1,900,000	0
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreation facilities.	0	249,000
Total Non-Federal Costs	$592,483,000	$ 3,806,000

STATUS OF LOCAL COOPERATION: The State of Georgia began payments for recreation reimbursements in May 1985. The State of South Carolina began payments in August 1985. Responsibility for repayment of power costs rests with the Southeastern Power Administration pursuant to Federal Laws.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps) costs estimate of 642,858,000is an increase of $4,000,000 from the latest estimate presented to Congress (FY 2010).

Item	Amount
Price escalation and increase to contract due to design modification	$4,000,000
Total	$4,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) on conventional installation was submitted to Council on Environmental Quality (CEQ) on 31 May 1974. A supplement on water quality to the final EIS was filed with CEQ in May 1976. The final EIS on pumped storage was filed with the Environmental Protection Agency (EPA) in October 1979. The Supplement on fish and wildlife mitigation to the final EIS was filed with the EPA in December 1981. A supplement to the final EIS on pumped storage was filed in August 1991. A final NEPA document (Environmental Assessment) now based on 4 ½ years of environmental testing is complete. It embodies those technical items that the Corps of Engineers (COE) and South Carolina have reached agreement on, relating to operational measures, construction of an oxygenation (O2) system to increase fish habitat and continued environmental monitoring of a commercial operation. The EA for Pumped Storage was completed in FY 1999 and the FONSI was signed in August 1999.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1968. Funds to initiate land acquisition were appropriated in FY 1971 and allocated in FY 1972. Initial construction funds were appropriated in FY 1975.

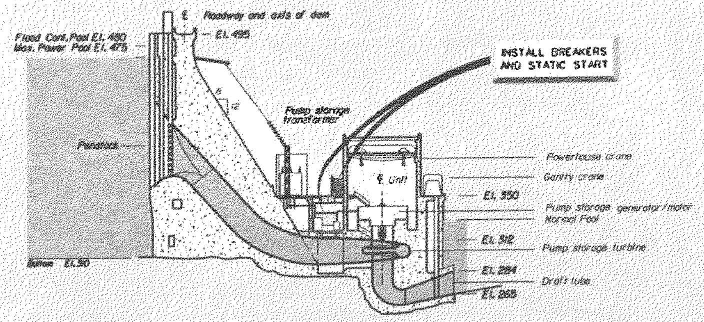
Pumped Storage was declared commercially available on 1 September 2002 with a favorable decision from U.S. District Court granted 03 May 2002.

In accordance with the NEPA Decision previously signed in August 1999, the District agreed to construct an oxygenation (O2) system in J. Strom Thurmond (JST) Lake to mitigate the environmental impacts from the potential summer time temperature rise to the striped bass habitat in the tail water regime below Richard B. Russell Dam. This mitigation has to be in place before there can be full use of the 4 Pump-Back units year round. The oxygenation (O2) system is designed to provide for additional fish habitat and it is located near Modoc, S.C. about 5 miles above J. Strom Thurmond (JST) Dam. Also, in accordance with the NEPA document, the Corps is required to continue environmental monitoring for seven years, five of which must be after the oxygenation (O2) system is operational, to cover the year round pump back capability using 4 pump units. The District has agreed to limit pumping to two units from June to September prior to the construction of the oxygenation (O2) system, after that, all 4 pump units will be available during the summer months.

STATUS OF IMPLEMENTATION: The Gilchrist Ferry Access road improvements are necessary to provide safe and dependable transportation for the tanker trucks delivering liquid oxygen to the Cryogenic Oxygenation site in Modoc, South Carolina. This contract was awarded in September 2008 and is anticipated to be completed by February 2010. The above ground oxygenation system (storage tanks, vaporizers, etc.) was awarded in June 2009 and is scheduled to be completed by September 2010. Tennessee Valley Authority (TVA) will prepare the design and conduct any required Engineering During Construction for the oxygen diffuser system which will deliver dissolved oxygen to the lake. The construction of the oxygen diffuser system is scheduled for award in February 2010 and completed by February 2011. The required environmental monitoring will continue for an additional five years after construction completion of the O2 system.

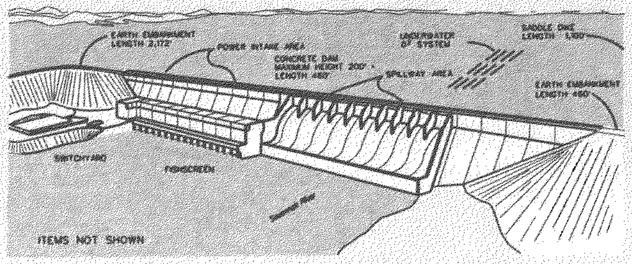
CORPS OF ENGINEERS

U.S. ARMY



INSTALL BREAKERS AND STATIC START

PUMP STORAGE
INTAKE AND POWERHOUSE SECTION

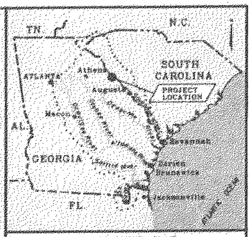

EARTH EMBANKMENT LENGTH 2,172'
POWER INTAKE AREA
CONCRETE DAM MAXIMUM HEIGHT 200' ± LENGTH 480'
UNDERWATER O² SYSTEM
SADDLE DIKE LENGTH 1,100'
SPILLWAY AREA
EARTH EMBANKMENT LENGTH 460'
SWITCHYARD
FISHSCREEN
ITEMS NOT SHOWN

PERSPECTIVE

ITEMS NOT SHOWN:

INSTALL NEW JST O² STORAGE AND DISTRIBUTION SYSTEM-RBR PUMPED STORAGE STORAGE MITIGATION (25 MILES DOWNSTREAM)

CONTINUE ENVIRONMENTAL MONITORING FOR FOR PUMPED STORAGE OPERATION



VICINITY MAP

STATUS OF WORK

▨	WORK COMPLETED AS OF 30 SEPTEMBER 2008
☐	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2009
■	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2010
▩	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2010

MULTIPLE PURPOSE PROJECTS
INCLUDING POWER

RICHARD B. RUSSELL DAM AND LAKE
GEORGIA AND SOUTH CAROLINA

WORK COMPLETED, IN PROGRESS & PROPOSED

SAVANNAH DISTRICT
SOUTH ATLANTIC DIVISION
1 JANUARY 2009

Division: South Atlantic District: Savannah Richard B. Russell Dam and Lake, GA & SC

1 February 2010

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alabama-Coosa Comprehensive Water Study, AL

AUTHORIZATION: FY 1991 Energy and Water Development Appropriations Act

LOCATION AND DESCRIPTION: This project covers the Alabama-Coosa-Tallapoosa (ACT) and Apalachicola-Chattahoochee-Flint (ACF) drainage basins in Alabama, Georgia and Florida. The project was set up years ago to resolve issues related to water allocation issues on the ACT and ACF river basins. This project has been utilized to support the studies, reports, and other activities required to support the potential resolution of the ongoing disputes between the states of Alabama, Georgia and Florida. Numerous lawsuits have been filed and this project is required to support the Corps' litigation efforts.

CONFERENCE AMOUNT FOR FY 2010: $240,000

BUDGET FOR FY 2011: **M**: $0 **O**: $253,000 **T**: $253,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: $253,000 will be used for technical support for ongoing litigation issues on the Alabama-Coosa-Tallapoosa and Apalachicola-Chattahoochee-Flint River Systems. Activities include providing input to and review and commenting on briefs prepared by Department of Justice, reviewing and commenting on briefs filed by the plaintiffs, responding to Freedom of Information Act requests and other correspondence.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Alabama River Lakes, AL

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: This multiple purpose project is part of the Alabama-Coosa-Tallapoosa (ACT) River System and includes a 9 feet deep X 300 feet wide navigation channel that extends from the mouth of the Alabama River, 45 miles north of Mobile, Alabama, for 300 miles northeast to Montgomery, Alabama, where it connects with the Coosa River, which extends northeast 286 miles to Rome, GA. This project includes O&M funding for three projects located on the Alabama River: Millers Ferry Lock and Dam (L&D), Alabama-Coosa Rivers (Claibome L&D), Robert F. Henry L&D.

CONFERENCE FOR FY 2010: $15,951,000

BUDGET FOR FY 2011: M: $8,105,000 **O**: $7,640,000 **T**: $15,745,000

RECOVERY ACT ALLOCATIONS TO DATE: $22,372,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,475,000 provide caretaker operations for spillway gate regulation to maintain pool at proper levels to prevent flooding and/or head limits at upstream dam, for channel surveys, and mandated updates to the ACT water control manuals.

FRM: $505,000 will be used for activities related to the controlled release and storage of water, including the update of the ACT water control manuals.

Rec: $3,423,000 will be used for rehabilitation, repair and maintenance of recreation facilities on Alabama River Lakes including campgrounds, day use parks, fishing decks and boat ramp facilities. This is to maintain a level of service that will ensure safe recreation experiences and clean, orderly facilities.

Hydro: $8,667,000 will be used for routine preventative maintenance to meet goals by limiting forced outages and maximizing peak unit availability, to collect water management data, dam safety activities and to update the ACT water control manuals.

ES: $675,000 will be used to protect fee-owned lands and waters against encroachments and loss due to fire, pests and timber theft; to monitor boundary lines; and to respond to real estate requests. Other activities include intensive land maintenance and enhancement for wildlife and cultural resources investigations.

WS: N/A

OTHER INFORMATION: Two hydropower plants on the project provide a critical contribution to our nation's power grid. Recreation areas and associated economic activity are major contributors to quality of life for the citizens, one of the most economically disadvantaged regions of the United States.

Division: South Atlantic District: Mobile
Project Name: Alabama River Lakes, AL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Allatoona Lake, GA

AUTHORIZATION: Flood Control Acts of 18 August 1941 and 22 December 1944. Recreation facilities were authorized by Section 4 of the Flood Control Act of 22 December 1944.

LOCATION AND DESCRIPTION: This 37,000 acre multi-purpose flood risk management project is located on the Etowah River, a segment of the Alabama-Coosa-Tallapoosa (ACT) River System, 48 miles above Rome, Georgia. The project includes a dam, hydroelectric powerhouse, gated spillway, a reservoir, 23 Corps of Engineers recreation areas and 54 non-federal recreation areas. The lake supports over 6.5 million visitors per year with over 90 million visitor-hours of recreation annually and is an important source of storage for the Atlanta Metropolitan Area's water supply.

CONFERENCE FOR FY 2010: $ 6,725,000

RECOVERY ACT ALLOCATIONS TO DATE: $9,482,000

BUDGET FOR FY 2011: M: $2,054,000 **O:** $4,954,000 **T:** $7,008,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $230,000 will be used for activities related to the controlled release and storage of water, including the collection of water management data and dam safety activities.

Rec: $3,684,000 will be used for the annual operation and maintenance of several recreational areas and rehabilitation or upgrade of various recreational facilities. In consideration of the funding provided, one campground and two day use areas will remain closed and one campground will operative on weekends only.

Hydro: $2,514,000 will be used for the annual maintenance of the structure and equipment associated with the control release and storage of water and includes funds for annual maintenance and repair of the project security system. Funds will also be used for the collection of water management data and dam safety activities.

ES: $580,000 will be used for natural resources management, shoreline management, water quality monitoring, and National Environmental Policy Act (NEPA) compliance surveys, etc for meeting the requirements of NEPA Sec. 101.

WS: N/A

OTHER INFORMATION: This project is located within the ACT River system 33 miles north of Atlanta, GA. This is one of the Corps' most highly visited recreational projects and provides hydropower marketed by the Southwestern Power Administration. Some recreational areas have already been closed due to lack of funding.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Apalachicola, Chattahoochee and Flint Rivers, GA, AL & FL

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945 and modified by WRDA 1986

LOCATION AND DESCRIPTION: The project is located in southeast Alabama, southwest Georgia and northwest Florida. The project includes a 9 X 100 foot navigation channel in the Apalachicola River in Florida, a 3 X 100 foot channel in the Flint River in Georgia to the City of Bainbridge, and a 9 X 100 foot navigation channel on the Chattahoochee River in Alabama and Georgia to Columbus, Georgia. The project includes George W. Andrews Lock on the Chattahoochee River in Early County, Georgia. Effective and efficient operation of the river system is contingent on adequate funding for Walter F. George L&D and Jim Woodruff L&D.

CONFERENCE FOR FY 2010: $2,316,000

BUDGET FOR FY 2011: **M**: $39,000 **O**: $2,564,000 **T**: $2,603,000

RECOVERY ACT ALLOCATIONS TO DATE: $11,784,800

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $730,000 will be used operations and maintenance of water management structures including the operation of the spillway gates, project condition surveys, and Periodic Inspection and Continuing Evaluation.

FRM: $351,000 will be used for the mandated revision of the Apalachicola-Chattahoochee-Flint Rivers (ACF) Water Control Manuals.

Rec: $163,000 will be used for normal operation and maintenance activities of the recreational facilities to accommodate visitation. Funds will also be used to repair a fishing deck and purchase a shelter structure.

Hydro: $1,259,000 will be used for the mandated revision of the ACF Water Control Manuals.

ES: $100,000 will be used the ranger staff, management of forestry and wildlife activities, property line surveys, and other cultural and natural resources activities. Funds will also be used for the mandated revision of the ACF Water Control Manuals.

WS: N/A

OTHER INFORMATION: This project has been designated as a low-use navigation waterway. There are several threatened and endangered species in the lower part of the system and much controversy on the operation of the system for water quality has been voiced.

Division: South Atlantic District: Mobile
Project Name: Apalachicola, Chattahoochee and Flint Rivers, AL, FL, GA

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway, GA

AUTHORIZATION: Multiple Rivers and Harbors Acts, beginning 1880, latest P.L. 14 dated March 2, 1945

LOCATION AND DESCRIPTION: The Savannah District's portion of the Atlantic Intracoastal Waterway consists of 161 miles of shallow draft channel from Port Royal Sound, SC to Cumberland Sound, FL. The authorized depth of the project is -12 ft mean low water (MLW). The purpose of the project is to provide safe and economical movement of goods between major deep draft ports that cannot be moved via highway or rail. The current controlling depth of the project is two feet below MLW. One reach was dredged in FY 2009. The project was last fully dredged in FY 2001.

CONFERENCE AMOUNT FOR FY2010: $885,000

BUDGET FOR FY2011: M: $0 **O**: $265,000 **T**: $265,000

RECOVERY ACT ALLOCATIONS THRU 31 DEC 09: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $265,000 – Funding provides for bare minimum caretaker activities; four condition hydrographic surveys, real estate cost to resolve encroachment, minor environmental coordination for any actions on the project, and minor project management cost. These funds would maintain bare minimum navigation performance with no improvement and continued degrading availablity and reliability.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway, NC

AUTHORIZATION: River and Harbor Acts of 1912, 1927, and 1937, as amended

LOCATION AND DESCRIPTION: The project is located on the east coast of North Carolina and runs from the Commonwealth of Virginia line to Little River, SC, a distance of 308 statute miles. The authorized project provides for a waterway 12 feet deep, with widths varying from 90 feet in land cuts to 300 feet in open waters. The project also includes numerous side channels with varying project dimensions.

CONFERENCE AMOUNT FOR FY 2010: $4,086,000

BUDGET FOR FY 2011: M: $3,100,000 **O**: $1,650,000 **T**: $4,750,000

RECOVERY ACT ALLOCATION TO DATE: $3,100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,750,000 provides for caretaker activities, which includes hydrographic condition surveys, real estate coordination, mosquito control, and environmental monitoring; maintenance dredging within the high commercial use segment of the Atlantic Intracoastal Waterway (AIWW) in support of the Port of Morehead City (Alligator River to the Commonwealth of VA line); and continuing the AIWW Regional Dredged Material Management Plan.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Results of the January 2007 AIWW Report to the NC Sea Grant, NC Department of Environment and Natural Resources and NC Beach, Inlet and Waterway Association indicates that the project contributes to the state-wide economic output by at least $109 million per year; about 1,700 jobs per year; and wages and salaries of $52 million per year. The project also supports the following users: U.S. Coast Guard, barge traffic supporting intermodal transportation to deep draft ports, military equipment and supply transportation barges and vessels, commercial and recreational vessels, National Oceanic and Atmospheric Administration vessels, and U.S. Army Corps of Engineers vessels.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Atlantic Intracoastal Waterway, SC

AUTHORIZATION: Multiple River and Harbor Acts. Latest is River and Harbor Act of 1945, P.L. 14

LOCATION AND DESCRIPTION: The Atlantic Intracoastal Waterway, a naturally protected navigation route that generally parallels the Atlantic coast between Norfolk, VA, and the St. John's River in Florida, was constructed in the early 1940's. South Carolina's portion runs a distance of 210 miles and has an authorized depth of 12 feet. Charleston District maintains approximately 90 small to medium-sized disposal areas along the AIWW totaling 2,399 acres. The AIWW is divided into three reaches in SC and the best return on investment is dredging one reach each year.

CONFERENCE FOR FY 2010: **T**: $1,811,000

BUDGET FOR FY 2011: **M**: $490,000 **O**: $410,000 **T**: $900,000

RECOVERY ACT ALLOCATIONS TO DATE: $6,088,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $900,000 – funding provides for condition surveys of the channel, real estate needs to resolve encroachments, permit review, and mosquito abatement in the disposal areas. These funds would ensure safe movement of vessels by allowing us to perform surveys in order to report condition of channels to using traffic. These funds would improve navigation performance by allowing us to reduce encroachments and maintain the boundary line at disposal areas, thereby maintaining the capacity of disposal areas, allowing them to be available when dredging operations are required.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Currently, the AIWW directly supports the armed forces of the nation through periodic military cargo transfers to include sonar domes, generators, and other equipment between Norfolk, Virginia and Kings Bay, GA. Additionally, approximately 10,000 barrels of jet fuel are delivered on a weekly basis from Jacksonville, FL to the Marine Corps Air Station in Beaufort, SC.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: B. Everett Jordan Dam and Lake, NC

AUTHORIZATION: Flood Control Act of 1965 (H.D. 175, 89th Cong., 1st session)

LOCATION AND DESCRIPTION: The project is located on the Haw River, in central North Carolina, 4.3 miles above its mouth, and 2.5 miles north of Moncure, NC. The project provides flood risk management, recreation and other purposes. The project includes an earth dam 1,330 feet long with a maximum height of 112 feet above the streambed; an uncontrolled, unpaved chute spillway; a controlled 19-foot diameter outlet structure; and saddle dikes just beyond the spillway. The reservoir is operated as a unit of a coordinated system for flood risk management in the Cape Fear River Basin.

CONFERENCE AMOUNT FOR FY 2010: $1,804,000

BUDGET FOR FY 2011: **M**: $370,000 **O**: $1,548,000 **T**: $1,918,000

RECOVERY ACT ALLOCATION TO DATE: $1,128,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,192,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, water control management, and yard support and supplies. Funding also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: $479,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: $247,000 provides for critical routine maintenance to meet minimum mandated and legal requirements including National Environmental Policy Act and mitigation in accordance with the project authorization, in coordination with state managing agencies. Funding also provides protection of significant natural and cultural resources and ensures environmental compliance in coordination with state managing agencies.

WS: N/A

OTHER INFORMATION: Funding allocated under the American Recovery and Reinvestment Act of 2009 has been utilized to address a portion of the maintenance backlog at this project. Recovery Act funding is also being utilized to continue making recreation areas more safe, sustainable, and enjoyable opportunities for the visiting public.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Biloxi Harbor, MS

AUTHORIZATION: Section 107 of River and Harbor Act of 1960 and River and Harbor Act of 1966

LOCATION AND DESCRIPTION: The project is located on Biloxi Bay bordering Harrison and Jackson Counties, Mississippi. The project consists of a 12 x 150 foot main channel from the Gulf Intracoastal Waterway leading northward to and including several small commercial channels and turning basins on Mississippi Sound and Biloxi Bay. The project supports important coal shipments to fuel an electric power generation plant as well as commercial fisheries and heavy industrial manufacturing facilities.

CONFERENCE FOR FY 2010: $1,188,000

BUDGET FOR FY 2011: **M**: $1,400,000 **O**: $0 **T**: $1,400,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,400,000 will be used for maintenance dredging, water quality certification and endangered species coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This high use shallow draft project is critical for coal shipments for power generating facilities supplying south Mississippi. Also heavy industrial manufacturing facilities are located on the waterway, including industries that often contract with the Corps for construction of lock gates and other large bridge components, etc.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Black Warrior and Tombigbee Rivers, AL

AUTHORIZATION: The project was authorized by various River and Harbor Acts, 1884-1986. Replacement of obsolete structures was authorized by the 1909 River and Harbor Act.

LOCATION AND DESCRIPTION: The project includes a 9 X 200 foot navigation channel from Mobile Harbor, north for 426 miles, connecting the Port of Mobile with the industrial areas of Birmingham, Alabama, and serving as the corridor from the Tennessee-Tombigbee Waterway to the Gulf of Mexico including six locks, dams and reservoirs.

CONFERENCE FOR FY 2010: $22,979,000

BUDGET FOR FY 2011: **M**: $12,025,000 **O**: $8,726,000 **T**: $20,751,000

RECOVERY ACT ALLOCATIONS TO DATE: $24,591,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $16,690,000 will be used lock maintenance and maintenance dredging activities including surveys, disposal area maintenance, periodic inspection and continuing evaluation of completed civil works structures, and environmental coordination.

FRM: N/A

Rec: $3,611,000 will be used normal operation and maintenance of recreational facilities to accommodate visitation. Funds will also be used renovations, replacements and upgrades at several recreational areas.

Hydro: N/A

ES: $450,000 will be used for salaries, equipment, supplies and material necessary for stewardship at the projects. Funds will also be used for intensive wildlife management of the project lands and natural resources surveys.

WS: N/A

OTHER INFORMATION: This waterway is extremely important for the shipment of coal as an export and to support several coal-fired electric generating plants in the southeastern United States. The waterway also provides critical transportation of crude oil to an oil refinery and transportation of ore and steel for foundries. Recreation areas and associated economic activity are major contributors to quality of life for the citizens in one of the most economically disadvantaged regions of the United States.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Brunswick Harbor, GA

AUTHORIZATION: O&M General, HR6, 99th Congress, 2nd Session, Section 846

LOCATION AND DESCRIPTION: Deep Draft Navigation. Brunswick Harbor is a deep-water port with project dimensions of 38 feet deep and 500 feet wide in the bar channel and 36 feet deep and 400 feet wide in the inner channels through St. Simon's Sound, Brunswick River and East River. The inner harbor is maintained through use of Andrews Island, the sole upland disposal area. The inner harbor has two turning basins, one in East River and the other in Turtle River. Terry Creek is an inactive dredged material containment area near Brunswick, Georgia contaminated by toxaphene, on which the EPA, Hercules, Inc, and Savannah District are working to resolve concerns over possible environmental impacts. Monthly controlling depth surveys taken along the entire length of the harbor are used to monitor harbor sedimentation.

CONFERENCE AMOUNT FOR FY2010: $6,801,000

BUDGET FOR FY2011: M: $ 6,043,000 **O:** $676,000 **T:** $6,719,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $6,719,000 – funding provides for routine operations and maintenance for navigation; dredging w/upland and open water placement, critical environmental monitoring and coordination with resource agencies both federal and state, critical water quality montoring, and real estate cost to resolve encroachments. These funds would improve navigation performance by increasing the availability and reliability by 25% and would provide decrease in delays to shipping and an increase in safety for the navigation community using the project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Buford Dam and Lake Sidney Lanier, GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The project is located approximately 40 miles north of Atlanta, GA on the Chattahoochee River in Gwinnett, Hall, Dawson, Lumpkin and Forsyth Counties. The project includes a hydroelectric powerhouse, a 39,000 acre flood risk management reservoir with 692 miles of shoreline, and 83 recreation facilities. The project is a three-time winner of the Corps "Project of the Year Award", and leads the nation in user fees. Local Chamber of Commerce data shows Lake Lanier has a $5.5 Billion economic impact. Last year the project totaled over 7.7 million in visitation.

CONFERENCE FOR FY 2010: $8,481,000

BUDGET FOR FY 2011: **M**: $3,122,000 **O**: $5,718,000 **T**: $8,840,000

RECOVERY ACT ALLOCATIONS TO DATE: $8,025,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $42,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

FRM: $384,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities. Approximately $2Billion plus of property is located in the floodplain between Buford and Peachtree Creek. The project is essential to the protection of property in the metropolitan Atlanta area.

Rec: $ 3,765,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps. This project is one of the most visited Corps of Engineers projects in the United States as well as consistently returning over $1M in recreation user fee funds annually to the U.S. Treasury. Numerous local businesses and jobs depend on the recreational visitation to the lake for their livelihood.

Hydro: $ 3,409,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages. The capability and reliability is essential in maintaining frequency on the power grid.

ES: $1,240,000 will be used for stewardship of fee owned acreage, natural resources management, water quality protection, protection of federally listed threatened and endangered species and an update to the master plan. The Shoreline Management Program is one of the largest in the country with over 10,000 permits issued. Effective management of this program is essential in maintaining a balance between adjacent land owners, public use, and the natural riparian ecosystems around the lake.

WS: N/A

Division: South Atlantic District: Mobile
Project Name: Buford Dam and Lake Sidney Lanier, GA

1 February 2010

SAD-172

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

OTHER INFORMATION: This is one of the most highly visited Corps of Engineers projects in the United States, is currently the main source of drinking water for Atlanta Metropolitan area, and provides peaking power marketed by the Southeastern Power Administration. This project has high visibility among the public and local, state and federal agencies.

Division: South Atlantic District: Mobile
Project Name: Buford Dam and Lake Sidney Lanier, GA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Canaveral Harbor, FL.

AUTHORIZATION: River and Harbor Act 2 March 1945 (PL 79-14) authorized the construction of an entrance channel, jetties, a turning basin, enclosed by a dike, and a barge canal with a lock connecting the turning basin with the Intracoastal Waterway Jacksonville to Miami. River and Harbor Act, (PL 87-874) 23 Oct. 1962, as described in Senate Document No. 140, 87th Congress 2nd Session; "Maintenance by means of a sand transfer plant and conventional dredging of authorized channel depths of 37 feet in the existing entrance channel, 36 feet in the existing inner channel, and 35 feet in the existing turning basin."

LOCATION AND DESCRIPTION: Canaveral Harbor is located in Brevard County on the recurving shore of Cape Canaveral in an area known as the Canaveral Bight. The two nearest deep-water ports are Jacksonville, 155 miles north, and Ft. Pierce 40 miles south. Project consists of maintenance of an entrance channel 41 feet deep and 400 feet wide; an inner channel 40 feet and 400 feet wide; a 1200 foot diameter turning basin 39 feet deep; a channel 39 feet deep and 400 feet wide for an 1800 foot length; enlargement of barge channel to 12 feet deep and 125 feet wide to the Intracoastal Waterway; a channel extension 31 feet deep by 300 feet wide by 1,500 feet long dredged west of the turning basin; a barge lock 90 feet wide and 600 feet long west of the harbor dike; and two entrance jetties to the 12-foot contour. Length of the project is about 11.5 miles. The entrance channel and part of the inner channel have been deepened to 44 feet for the Navy's Trident Project.

CONFERENCE AMOUNT FOR FY2010: $4,372,000

BUDGET FOR FY2011: M: $3,177,000 **O**: $1,538,000 **T**: $4,715,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,596,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,715,000 will be used to initiate and complete plans and specifications in FY 2011.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Atlantic District: Jacksonville
Project Name: Canaveral Harbor, FL

1 February 2010

SAD-174

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cape Fear River above Wilmington, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1934, 1935, 1937, 1965; and Section 4, Flood Control Act of 1944

LOCATION AND DESCRIPTION: The Cape Fear River above Wilmington project is located in Bladen County in southeastern North Carolina and consists of three Federally built and maintained locks and dams. Two of the locks and dams were constructed between 1915 and 1917, while the third was completed in 1935. Today, these locks and dams are in fair structural condition. The locks and dams were constructed to provide a navigable channel for commercial barges from Wilmington to Fayetteville, NC, a distance of about 110 river miles. This project is not currently used by commercial navigation traffic.

CONFERENCE AMOUNT FOR FY 2010: $939,000

BUDGET FOR FY 2011: M: $2,090,000 **O**: $153,000 **T**: $2,243,000

RECOVERY ACT ALLOCATION TO DATE: $5,198,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,015,000 provides for caretaker status activities including anadromous fish lockages and related activities to ensure lock operation, periodic inspections, data gathering; and critical maintenance at Lock No. 1 for esplanade repairs, concrete apron inspection, timber dike repairs, and safety assurance report.

FRM: N/A

Rec: $228,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Funding has been allocated under the American Recovery and Reinvestment Act of 2009 for initial dam safety repairs to the almost 100 year old structure at Lock and Dam No. 1 by filling the downstream scour hole, currently scheduled for award in February 2010. Also, an Initial Appraisal Report, conducted under the authority of Section 216 of the Flood Control Act of 1970, was approved on 2 July 2009. Subsequent detailed studies under this authority would determine if modifications to this project were advisable due to significantly changed physical or economic conditions.

Division: South Atlantic District: Wilmington
Project Name: Cape Fear River above Wilmington, NC

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Carters Dam and Lake, GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: This 8,577 acre project is located on the Coosawattee River, a portion of the Alabama-Coosa-Tallapoosa (ACT) River System, 26.8 miles above the mouth of the river, near Chatsworth, Georgia. The project includes a dam, hydroelectric powerhouse (master plant that controls Allatoona and Buford), a flood risk management reservoir and 10 recreational areas.

CONFERENCE FOR FY 2010: $7,905,000

BUDGET FOR FY 2011: M: $4,622,000 **O**: $3,514,000 **T**: $8,136,000

RECOVERY ACT ALLOCATIONS TO DATE: $12,477,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $560,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

Rec: $1,592,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, swim beach, boat launching ramps, and fishing areas.

Hydro: $5,774,000 will be used for operation maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages.

ES: $210,000 will be used for stewardship of project natural resources, updating the master plan, management of wildlife habitat, monitoring and managing forest resources, and monitoring and resolving encroachments.

WS: N/A

OTHER INFORMATION: The Carters project includes a main dam and re-regulation dam. Two of the four generators can be reversed, and utilized to pump water back to the main reservoir during non-peaking generation hours for reuse during peaking hours. This project is part of the ACT River System.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Central & Southern Florida

AUTHORIZATION: Flood Control Acts of 1948, 1954, 1958, 1960, 1962, 1965, 1968, Water Resources Development Act (WRDA) of 1992, 1996, and 2000

LOCATION AND DESCRIPTION: The project, covering an area of some 16,000 square miles, lies generally within the southeasterly 18 counties of Florida. It is comprised of the upper St. Johns River Basin, located in the northeastern section of the project; the Kissimmee River Basin, in the central section above Lake Okeechobee; the Lake Okeechobee-Everglades area in the central and southwestern section; and the East Coast-Everglades in the southeastern section. The project is for flood relief and water conservation and provides principally for: an East Coast Protective Levee extending from the Homestead area north to the eastern shore of Lake Okeechobee near St. Lucie Canal; three conservation areas for water impoundment in the Everglades area west of the East Coast Protective Levee, with control structures to effect transfer of water as necessary; local protection works along the lower east coast; encirclement of the Lake Okeechobee agricultural area by levees and canals; enlargement of portions of Miami, North New River, Hillsboro, and West Palm Beach canals; enlargement of existing Lake Okeechobee levees and construction of new levees on the northeast and northwest shores of the lake; increased outlet capacity for improved control of Lake Okeechobee; floodway channels in the Kissimmee River Basin, with suitable control structures to prevent over drainage; an interrelated system of canals, levees, pumping stations and structures in the southwest Dade County to control water levels; and facilities for regulation of floods in the upper St. Johns River Basin.

CONFERENCE AMOUNT FOR FY 2010: $22,967,000

BUDGET FOR FY 2011: M: $9,200,000 **O**: $7,672,000 **T**: $16,872,000

RECOVERY ACT ALLOCATIONS TO DATE: $24,087,600

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $989,000 - Project provides for navigation suitable for commercial and recreational craft, consisting of two locks and channel dredging in the upper Kissimmee and St. Johns River Basins and along the Okeechobee waterway (155 miles).

FRM: $13,181,000 will provide water control and protection from the recurrence of devastating floodwaters from the Everglades and local sources, for the highway-developed urban area along the lower east coast of Florida, and for the productive agricultural areas around Lake Okeechobee (including the towns around the lake), in the upper St. Johns, Kissimmee River Basins, and south Dade County. The project includes a total of 89 miles of levees, 954 miles of canals, 30 pumping plants, 192 floodway control and diversion structures, 26 navigation locks, and 57 railroad relocations (bridges). Update and convert all controls to the central lock building at Port Mayaca Lock. Project provides for safety of operators during hurricane conditions, required critical major maintenance, including sandblast, paint, and repairs to Port Mayaca Lock (Major maintenance last done in 1991) and major maintenance of spillway S-10 (A,B and C).

Division: South Atlantic District: Jacksonville
Project Name: Central and Southern Florida

1 February 2010

SAD-177

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

ENR: $1,492,000 will provide annual water management operation of project features, critical management/maintenance of hydrological and meteorological operations, streamgaging oversight of the entire program, and critical management/maintenance of the U. S. Geological Survey Cooperation Streamgaging Program for use in annual water management operations.

Rec: $805,000 will provide operation and maintenance of vistor and recreation facilities serving over two million visitors, at W.P. Franklin Lock and along the waterway as associated with the CSF project. Assets include campgrounds, visitor center, picnic sites, boat ramps, utilties and provision of ranger staff, volunteers, water safety, contract support for repairs, maintenance and mowing in order to promote safe visitor activities associated with the project.

ES: $405,000 will provide mangement of threatened and endangered species, flora and fauna as appropriate, land use managment activities, Ranger staff, biologists, volunteers and contract support for the eradication and control of invasive species.

OTHER INFORMATION: None

Division: South Atlantic District: Jacksonville
Project Name: Central and Southern Florida

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Charleston Harbor, SC

AUTHORIZATION: Multiple River and Harbor Acts. Latest authorization is WRDA 96, P.L. 104-303 Section 101

LOCATION AND DESCRIPTION: Charleston Harbor is located about midway along South Carolina's Atlantic coastline. This project consists of maintenance of 44.6 miles of channel, three turning basins, and one anchorage basin. The lower harbor requires dredging every year, entrance channel every other year, and the upper harbor approximately every 16 - 18 months. The material removed from the upper harbor is placed in the Clouter Creek Disposal Area, which is approximately 1,475 acres in size.

CONFERENCE FOR FY 2010: T: $10,163,000

BUDGET FOR FY 2011: M: $9,325,000 **O**: $600,000 **T**: $9,925,000

RECOVERY ACT ALLOCATIONS TO DATE: M: $5,049,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $9,925,000 provides for dredging of the lower harbor, disposal area maintenance, condition surveys of the channel, real estate needs to resolve encroachments, permit review, and mosquito abatement in the disposal areas. These funds are necessary to maintain and reestablish project depths that have decreased because of shoaling. This will improve navigation performance by increasing the availability of channel to project depth, thereby eliminating the need for light loading or delays awaiting tides to access a strategic terminal. These funds would ensure adequate disposal area capacity is available to contain the material dredged from the channels in the coming years.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Charleston Harbor is listed as one of 14 US strategic ports because of the presence of the Naval Weapons Station, Military Surface Deployment and Distribution Command, Defense Energy Support Center and Army Strategic Logistics Activity Charleston. According to the American Association of Port Authorities it is the 4th busiest container port on the East Coast and provided over 40% of the equipment and material in support of reconstruction efforts in Iraq and Afghanistan. The harbor generates $45 billion annually for the regional economy, and supports the military as a major power projection platform.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cooper River, Charleston Harbor, SC

AUTHORIZATION: Section 101 of the River and Harbor Act of 1968 (P.L. 90-483), modified in the Energy and Water Development Appropriations Act, 1992 (P.L. 102-104) and further modified by Section 353, WRDA 99

LOCATION AND DESCRIPTION: The project is located in Charleston and Berkeley Counties. All improvements are in Berkeley County about 45 miles from Charleston. The project includes operation and maintenance of the powerhouse and associated structures and facilities in accordance with our agreement with the SC Public Service Authority (SCPSA). The purpose of the rediversion project was to reduce shoaling in Charleston Harbor by diverting most of the Santee River waters above Pinopolis Dam back into the lower Santee River. Also included in the project authorization was the design and construction of a fish lift as a mitigation feature intended to maintain the number of blueback herring entering the Santee-Cooper Lakes.

CONFERENCE FOR FY 2010: T: $ 4,452,000

BUDGET FOR FY 2011: M: $1,000,000 **O**: $5,140,000 **T**: $6,140,000

RECOVERY ACT ALLOCATIONS TO DATE: M: $4,010,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $6,140,000 – funding provides for operation of the powerhouse, natural resource management, condition and operation studies/activities, water quality control, powerhouse maintenance, and maintenance of non-recreation building, grounds and utilities. These funds would improve navigation performance by decreasing shoaling in Charleston Harbor, which is downstream of the project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is, in essence, an extension of the Charleston Harbor project. The project was authorized, constructed, and is operated with one purpose - the reduction of siltation in Charleston Harbor. Prior to rediversion, costs for the O&M of Charleston Harbor were threatening the continued viability of the port. That purpose can only be satisfied with the continued operations of the project. Charleston Harbor is listed as one of 14 US strategic ports and is the 4th busiest container port on the East Coast and provided over 40% of the equipment and material in support of reconstruction efforts in Iraq and Afghanistan.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: East Fork, Tombigbee River, MS

AUTHORIZATION: Flood Control Acts of 22 June 1936, 28 June 1938 and 18 August 1941

LOCATION AND DESCRIPTION: This 53 mile long flood risk management project is located on the Tombigbee River and its tributaries between the junction of Browns and Mackey's Creeks in Itawamba County, Mississippi to the Monroe County line. This project provides for maintenance of the channel to ensure flood risk management benefits for Itawamba County, conveys water to meet requirements of the US Fish and Wildlife Service for protection of endangered mussels, and ensures the ability to provide water supply for the City of Tupelo, averaging 10 million gallons per day.

CONFERENCE FOR FY 2010: T: $178,000

BUDGET FOR FY 2011: M: $200,000 **O**: $20,000 **T**: $220,000

RECOVERY ACT ALLOCATIONS TO DATE: T: $236,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $220,000 will be used to maintain the East Fork flood risk management project.

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project includes overhead clearing and general debris removal from the East Fork of the Tombigbee River and Mackey's Creek in Itawamba County, Mississippi. The clearing and debris removal efforts result in benefits related to flood prevention, municipal water supply and environmental stewardship.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Escambia and Conecuh Rivers, FL

AUTHORIZATION: River and Harbor Acts of 14 June 1880, 2 March 1907 and 3 July 1958

LOCATION AND DESCRIPTION: The Escambia-Conecuh Rivers are names applied to a single stream, a portion of which is located in Alabama and known as the Conecuh River and in Florida as the Escambia. This project consists of bay and river channels that are 100 feet wide x 10 feet deep. The project serves barge transportation needs of the Ascend Performance Materials LLC and Gulf Power Company, both major industries in this region. It has steady commercial traffic and requires little maintenance, making it a very cost effective project to maintain.

CONFERENCE FOR FY 2010: T: $ 56,000

BUDGET FOR FY 2011: M: $0 **O**: $68,000 **T**: $68,000

RECOVERY ACT ALLOCATIONS TO DATE: T: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $68,000 will be used for dredging of the channel, surveys and required monitoring of Mackey Island Disposal Area.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Gulf Power Crist Plant is critical to the regional power grid. Both Gulf Power and Ascend Performance Materials contend that their facilities can not survive without this project. The local railway systems and highway systems could not handle the volume (approximately 3.5 million tons) of traffic that would be required to furnish the coal, limestone, and other raw materials required by these companies and currently supplied by barge. Between these two companies they employ almost 3000 employees. Disruption of this channel access would severely impact the local area economy.

Division: South Atlantic District: Mobile
Project Name: Escambia and Conecuh Rivers, FL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Everglades & South Florida: Seminole Big Cypress (SBC) Reservation Water Conservation Plan, part of the Critical Projects Program, Florida

AUTHORIZATION: WRDA Authorizations for construction was contained in the Water Resources Development Act of 1996 (Public Law 104-303), Section 528 (b)(3); The Water Resources Development Act of 1999, Section 208; WRDA 2007, Section 6006. Authorization for operation and maintenance was contained in WRDA 2000 (Public Law 106-543), Section 601 (e)(4).

LOCATION AND DESCRIPTION: The Seminole Tribe Big Cypress Reservation Water Conservation Plan is located in Hendry County, directly north of the Big Cypress National Preserve and west of Water Conservation Area 3A. The North and West Feeder Canals traverse the Big Cypress Reservation; both of these conveyances were constructed as part of the Central & Southern Florida Project. East Basin work consists of conveyance canals, which have been designed and constructed by the Seminole Tribe. West side work consists of four basins, each of which may include irrigation storage cells, water resource areas (similar in function to a Stormwater Treatment Area), a stormwater cell, pump stations for transferring water, canals for distribution, and inverted siphons to carry effluent under the West Feeder Canal into the Reservation's Native Range.

CONFERENCE AMOUNT FOR FY 2010: $575,000

BUDGET FOR FY 2011: M: $625,000 **O**: $0 **T**: $625,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ENR: $625,000 is for the operation and maintenance work on the West Basin and Basin 1 to include equipment maintenance, erosion control and mowing, as well as operation of pump stations associated with two Wetland Resource Areas and six irrigation cells.

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Atlantic District: Jacksonville
Project Name: SBC Reservation Water Conservation Plan

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Falls Lake, NC

AUTHORIZATION: Flood Control Act of 1965 (H.D. 175, 89th Cong., 1st session.)

LOCATION AND DESCRIPTION: The project is located on the Neuse River about 10 miles north of Raleigh, NC. The project provides flood risk management, recreation and other purposes. The project includes an earth dam which is 1,915 feet long with a maximum height of 95 feet above the streambed. An uncontrolled chute spillway, 100 feet wide, is located in the east abutment. This project is operated as part of a coordinated system for flood risk management in the Neuse River Basin.

CONFERENCE AMOUNT FOR FY 2010: $1,767,000

BUDGET FOR FY 2011: M: $342,000 **O**: $1,700,000 **T**: $2,042,000

RECOVERY ACT ALLOCATION TO DATE: $792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,192,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, water control management, and yard support and supplies. Funding also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: $504,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: $346,000 provides for minimum mandated and legal requirements including National Environmental Policy Act and mitigation in accordance with project authorization and state managing agencies. Also funding provides for prevention of loss of significant natural and cultural resources, development of a plan and assessment to guide inventory preservation and development of historic resources for the public benefit.

WS: N/A

OTHER INFORMATION: Funding under the American Recovery and Reinvestment Act of 2009 has been utilized to address a portion of the maintenance backlog at this project. Recovery Act funding is also being utilized to continue making recreation areas more safe, sustainable, and enjoyable opportunities for the visiting public.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fernandina Harbor - Kings Bay, FL

AUTHORIZATION: River and Harbors Act of 1950

LOCATION AND DESCRIPTION: The authorized project provides for two stone jetties at harbor entrance, north jetty 19,150 feet long and south jetty 11,200 feet long; for a channel 32 feet deep from the ocean to junction of Lanceford Creek with Amelia River, 400 feet wide below Calhoun Street in the City of Fernandina, and generally 300 feet wide above; and, for widening the channel at the first bend above Lanceford Creek to 800 feet to form a turning basin. The entrance channel was deepened to 46 feet in FY 88 in connection with the King's Bay Trident Submarine Base at King's Bay, St. Mary's, Georgia.

CONFERENCE AMOUNT FOR FY 2010: $1,544,000

BUDGET FOR FY 2011: **M:** $1,144,000 **O:** $150,000 **T:** $1,294,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,694,450

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,294,000 will be used to perform quarterly surveys for the Fernandina Harbor Entrance Channel, develop a complete set of plans and specifications for dredging of the channel and to fund the annual maintenance dredging for Fernandina Harbor. This project is cost shared between the Corps and US Navy. Dredging of Fernandina Harbor Entrance Channel allows for the safe passage of Trident nuclear submarines from the Atlantic Ocean into Kings Bay Submarine Base.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Atlantic District: Jacksonville
Project Name: Fernandina Harbor, FL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Georgetown Harbor, SC

AUTHORIZATION: Multiple River and Harbor Acts. Latest is River and Harbor Act of 1948, P.L. 858

LOCATION AND DESCRIPTION: Project is located at the entrance of Winyah Bay to Georgetown, SC and consists of maintenance of one turning basin and 20 miles of channel to a depth of 27 ft. The three upland disposal areas used for this project require ongoing annual maintenance and periodic dike raising. The Port of Georgetown is largely a break-bulk facility - the shipping of goods that won't economically or physically fit in standard 20-foot-long containers, such as coal or cement.

CONFERENCE FOR FY 2010: **T**: $ 1,103,000

BUDGET FOR FY 2011: **M**: $0 **O**: $320,000 **T**: $320,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $320,000 provides for condition surveys of the channel. These funds would ensure safe movement of vessels by allowing us to perform surveys in order to report condition of channels to using traffic.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: One new customer, Carolina-Pacific LLC, recently signed a 20 year contract with the Port. The signing of four other potential customers is dependent on whether the channel will be maintained at full 27 ft authorized depth. The project is currently being maintained at a depth of 21 feet, 6 feet less than the authorized depth. The new businesses could generate $5.4 million in revenue, 300 new jobs, and bring as much as 4 million tons of cargo through Georgetown.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, AL (GIWW)

AUTHORIZATION: River and Harbor Act of 1966, as amended and prior acts

LOCATION AND DESCRIPTION: The Mobile District portion of the GIWW extends from the Louisiana/Mississippi state line to Apalachee Bay, Florida, providing a 12 x 150-foot channel from Louisiana to Mobile Bay, Alabama and a 12 x 125-foot channel from Mobile Bay to Apalachee Bay, Florida. The project supports major barge traffic providing the east/west transit route along the northern Gulf Coast for coal, petroleum products, chemicals, wood products and heavy industrial components. The project also supports high-end recreational traffic and waterway tourism industry.

CONFERENCE FOR FY 2010: T: $ 5,450,000

BUDGET FOR FY 2011: M: $4,600,000 **O**: $630,000K **T**: $5,230,000

RECOVERY ACT ALLOCATIONS TO DATE: T: $600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,230,000 will be used for dredging, disposal area maintenance, new disposal area construction, and endangered species and water quality certification compliance activities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is critical to the national defense, due to the fact that Eglin, Hurlburt, and Tyndall Air Force Bases all receive their jet fuel supplies by way of this waterway. This waterway is critical to the southeast region of the United States in that all the fuel terminals and coal fired power plants along the Gulf Coast receive their shipments by barge.

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gulfport Harbor, MS

AUTHORIZATION: The existing project was authorized by the River and Harbor Act of 1930 and modified by the River and Harbor Acts of 1948 and 1958, Supplemental Appropriations Act 1985 and Section 202 of WRDA 1986.

LOCATION AND DESCRIPTION: The navigation project is located in Gulfport, Mississippi, approximately equidistant between New Orleans, Louisiana and Mobile, Alabama. The project consists of a 38 x 300 feet Bar Channel from the Gulf of Mexico across Ship Island Bar into Mississippi Sound, a 36 x 220 feet Sound Channel leading to the Anchorage Basin proper, and an 8 x 100 feet Branch Channel leading to an adjacent small craft harbor. The project supports major import/exports of poultry products, fruit, wood products, metals and minerals for manufacturing processes.

CONFERENCE FOR FY 2010: **T**: $4,455,000

BUDGET FOR FY 2011: **M**: $3,782,000 **O**: $100,000 **T**: $3,882,000

RECOVERY ACT ALLOCATIONS TO DATE: **T:** $5,910,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,882,000 will be used for dredging, condition surveys, tide gauge operations and water quality certification and endangered species coordination.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Project is being widened to full authorized dimensions in Fiscal Year 2010. The port has a major expansion in the planning phase.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hartwell Lake, GA and SC

AUTHORIZATION: Flood Control Act 1950 and 1958; Water Resources Development Act 1976

LOCATION AND DESCRIPTION: The project is located midway between Atlanta, GA and Charlotte, NC. The dam is a concrete gravity type 1900 feet long and 204 feet high with a 568 foot controlled spillway. The project provides 2.8 million acre feet of storage with 1.4 million allocated to hydropower, 293,000 to flood control and 1.1 million acre feet to inactive storage. The project also boasts 962 miles of shoreline, 56,000 acres of water, and 23,500 acres of land.

CONFERENCE AMOUNT FOR FY2010: $11,403,000

BUDGET FOR FY2011: M: $ 5,892,000 **O:** $ 5,609,000 **T:** $11,501,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $24,000 will provide routine operations and maintenance for navigation and joint cost.

FRM: $420,000 will provide routine operation and maintenance of the spillway gates, sluice gates and associated electrical and mechanical equipment. Funding supports routine operation and maintenance of diversion dams and pumping station managing flood risk of Clemson University. Funding enables annual Dam Safety required inspections, instrumentation, monitoring, studies and failure exercises.

Rec: $4,853,000 will provide routine operation and maintenance for the most critical, time-sensitive, least-cost activities to provide acceptable service levels in recreation areas including day use parks, beaches, campgrounds and boat ramps. Areas would operate on traditional schedules. These funds would maintain positive customer satisfaction levels and provide safe, stable and sustainable facilities for the visiting public.

Hydro: $4,830,000 will provide routine operation and maintenance of the hydropower plant. Includes funding for operations and maintenance staff, field engineering, replacement parts, and funding needed to comply with NERC reliability standards. Operation and maintenance activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: $1,290,000 will provide essential stewardship functions for shoreline management of 11,909 shoreline permits and 303 outgrants. Funds will be used to protect government property from loss through encroachment detection and resolution and fish and wildlife management.

WS: $84,000 - Water supply is an authorized purpose and numerous adjacent communities withdraw water presently. Funding would include the enforcement of specific conditions of the permits. Permitting can not exceed 50,000 acre-feet without approval by the Secretary of the Army and a reallocation of water for the project authorized purposes.

OTHER INFORMATION: None

Division: South Atlantic District: Savannah
Project Name: Hartwell Lake, GA and SC

1 February 2010

SAD-189

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Intracoastal Waterway – Jacksonville to Miami

AUTHORIZATION: Rivers and Harbors Act 1948

LOCATION AND DESCRIPTION: The project provides for a channel 12 feet deep by 125 feet wide from Jacksonville to Fort Pierce, and 10 feet deep by 125 feet wide from Ft. Pierce to Miami, Florida.

CONFERENCE AMOUNT FOR FY 2010: $2,490,000

BUDGET FOR FY 2011: M: $350,000 **O**: $0 **T**: $350,000

RECOVERY ACT ALLOCATIONS TO DATE: $5,475,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $350,000 – Funding received in 2011 will be used to partially fund the dredging of 6 maintenance dredging events along the Intracoastal Waterway (IWW). In partnership with the Florida Inland Navigation District, the Corps applies federal funding received toward contracts for dredging. In addition fo funding a portion of the dredging, federal funding received is utilized in obtaining surveys of the channel condition up and down the IWW as well as funding the development of plans and specifications for the dredging. In 2011 it is anticipated that 5 sets of plans and specifications will be developed that will be used in the procurement of dredging contracts anticipated for 2012.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: J. Strom Thurmond Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located 22 miles north of Augusta, GA and consists of a 2,282 feet long, 200 feet high concrete section and a controlled spillway 1,096 feet long. It provides a total storage of 2.9 million acre-feet, of which 390,000 acre-feet is for flow regulation to benefit navigation below Augusta and for hydropower. The multi-purpose project's 80,000 acres of land, 70,000 acres of water, and 1,200 miles of shoreline are situated in seven counties within Georgia and South Carolina.

CONFERENCE AMOUNT FOR FY 2010: $9,804,000

BUDGET FOR FY 2011: M: $ 4,002,000 **O**: $6,916,000 **T**: $10,918,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $43,000 will provide routine operation and maintenance for navigation and joint cost under navigation business line.

FRM: $298,000 will provide routine operation and maintenance of the spillway gates, sluice gates and associated electrical and mechanical equipment. Funding enables annual Dam Safety required inspections, instrumentation, monitoring, studies and failure exercises.

Rec: $3,925,000 will provide routine operation and maintenance for the most critical, time-sensitive, least-cost activities to provide acceptable service levels in recreation areas including day use parks, beaches, campgrounds and boat ramps. Areas would operate on traditional schedules. These funds would maintain positive customer satisfaction levels and provide safe, stable and sustainable facilities for the visiting public.

Hydro: $5,268,000 will provide routine operation and maintenance of the hydropower plant, funding for operation and maintenance staff, field engineering, replacement parts, and funding needed to comply with North American Electric Reliability Corporation reliability standards. Operation and maintenance activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: $1,300,000 will provide essential stewardship functions on 150,000 acres of land and water with 2,770 shoreline permits and 348 outgrants. Funds protect against loss of government property through encroachment detection and resolution. Water quality monitoring will be conducted to minimize fish entrainment and assess spawning.

WS: $84,000 will include the enforcement of specific conditions of the permits.

OTHER INFORMATION: None

Division: South Atlantic District: Savannah
Project Name: J. Strom Thurmond, GA and SC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Jacksonville Harbor, FL

AUTHORIZATION: River and Harbors Act of 1965 and Section 101(a)(17) of the WRDA of 1999

LOCATION AND DESCRIPTION: The project provides a channel 40 feet deep from ocean to Mile 14.7, a channel 38 feet from 14.7 to Mile 20, via Dames Point-Fulton Cutoff, thence 34 feet to Commodore Point, and thence 30 feet deep to the F.E.C. Railway Bridge at Dames Point Fulton Channel; maintenance of the existing 42- and 40-foot depth entrance channel; widening of channel by 100 feet near Mile 5 and by 200 feet near Mile 7; maintenance of jetties at channel entrance; construction and maintenance of training walls and revetments; a navigation and floodway channel 26 feet by 200 feet along south side of Commodore Point; and approach and mooring basin 20 feet deep, 1,300 feet long at 20-foot depth contour and 600 feet long at pier head line near Naval Reserve Armory in South Jacksonville, a depth of 24 feet between that depth contour and the pier head line from Hogan Creek to the foot of Laura Street; and a depth of 28 feet to within 60 feet long at pier head line between the foot of Laura Street and St. Elmo W. Acosta (formerly upper state) Bridge. Length of project is about 26.8 miles.

CONFERENCE AMOUNT FOR FY 2010: $5,735,000

BUDGET FOR FY 2011: M: $5,558,000 **O:** $150,000 **T:** $5,708,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,708,000 provides routine operations and maintenance for navigation at this strategic port. These funds provide for project condition surveys and maintenance of critical shoals which would improve navigation performance by increasing the availability and reliability of the federal channel.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Without maintenance of the federal channel, harbor pilots have indicated restrictions would be implemented, reducing two-way traffic and tide restricted movements.

Division: South Atlantic District: Jacksonville
Project Name: Jacksonville Harbor, FL

1 February 2010

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Jim Woodruff Lock and Dam, FL, AL & GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The Jim Woodruff L &D project is located at Mile 107.3 on the Apalachicola River at the confluence of the Chattahoochee and Flint Rivers (ACF), about 45 miles northwest of Tallahassee, Florida. The project includes a dam, powerhouse, navigation lock, fixed and gated spillways, 39 recreational areas and a 37,500-acre reservoir with 532 miles of shoreline. The project received over 1.2 million visitors last year. Effective and efficient operation of the project is contingent on adequate funding for the ACF Rivers Project and Walter F. George Lock & Dam.

CONFERENCE FOR FY 2010: **T**: $ 9,249,000

BUDGET FOR FY 2011: **M**: $3,707,000 **O**: $5,742,000 **T**: $9,449,000

RECOVERY ACT ALLOCATIONS TO DATE: $15,240,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,403,000 will be used for critical caretaker operation and maintenance of the lock and spillway. Funds will also be used for mandated consultation, monitoring and studies for the Jim Woodruff Revised Interim Operations Plan. Funds will also be used for ongoing monitoring and studying of underseepage that occurs at the dam.

FRM: N/A

Rec: $1,501,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps, replacement, upgrade and renovation of recreational facilities, in particular replace pit toilets with water borne facilities to comply with state health codes and ADA requirements.

Hydro: $5,242,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages. Funds will also be used for mandated consultation, monitoring and studies for the Jim Woodruff Revised Interim Operations Plan.

ES: $303,000 will be used for operation, management and protection of existing soil, water vegetation, forest and fish & wildlife, cultural resources, updates of the master plan, coordination for federally listed threatened and endangered species and implementation of Invasive Species management. Hydrilla currently covers 16,000 acres of project waters degrading habitats, affecting navigation and operation of the powerhouse and recreation structures.

WS: N/A

Division: South Atlantic District: Mobile
Project Name: Jim Woodruff L&D, FL, AL & GA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

OTHER INFORMATION: Lake Seminole is routinely listed as one of the top ten fishing lakes in outdoor magazines.

Division: South Atlantic District: Mobile
Project Name: Jim Woodruff L&D, FL, AL & GA

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John H. Kerr Lake, VA and NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Roanoke River, about 180 river miles above its mouth, in Mecklenburg County, VA and Vance County, NC. The project provides flood risk management, recreation, hydropower, water supply and other purposes. The project includes a concrete gravity dam with wing and saddle dikes on the right and left banks, with a total length of over 4 miles. The reservoir is operated as a unit of a coordinated system of reservoirs in the Roanoke River Basin for flood risk management within the Roanoke River Basin. The power generating capacity of the project is 204,000 megawatts.

CONFERENCE AMOUNT FOR FY 2010: $11,010,000

BUDGET FOR FY 2011: **M**: $4,202,000 **O**: $7,221,000 **T**: $11,423,000

RECOVERY ACT ALLOCATION TO DATE: $5,858,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,429,000 provides for the critical routine maintenance of the flood risk management features of the project to include: water management in conformance to water control plans, dam safety activities, critical routine operations of the dam, Island Creek, and wing dike operations within the reservoir, project maintenance, surveillance of wing dikes and piezometer monitoring, rip-rap maintenance, annual maintenance of the structure, equipment and facilities associated with the storage and release of water.

Rec: $3,037,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: $5,878,000 provides for limiting forced outages and maximizing peak unit availability, to ensure compliance with the North American Electric Reliability Corporation reliability standards, and testing activities and equipment and documentation support.

ES: $1,075,000 provides for operation, management, and conservation of natural resources through implementation of the environmental operating principles, advance natural resource management programs and shoreline management.

WS: $4,000 provides for coordination with NC and VA officials on water supply releases.

OTHER INFORMATION: Funding under the American Recovery and Reinvestment Act of 2009 has been utilized to address a portion of the maintenance backlog at this project. Recovery Act funding is also being utilized to continue making recreation areas more safe, sustainable, and enjoyable opportunities for the visiting public. Also, the powerhouse is undergoing a major rehabilitation using construction funding and is currently scheduled for completion in FY 2011.

Division: South Atlantic District: Wilmington
Project Name: John H. Kerr Lake, VA and NC

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Manteo (Shallowbag) Bay, NC

AUTHORIZATION: River and Harbor Acts of 1910, 1940, 1950 and 1970; and under Section 107 of the 1960 River and Harbor Act, as amended

LOCATION AND DESCRIPTION: The project is located along the outer banks portion of Dare County, North Carolina, between Oregon Inlet, Roanoke Island and Albemarle Sound. The project provides for a channel 14 feet deep and 400 feet wide from the Atlantic Ocean through Oregon Inlet with channels 12 feet deep by 100 feet wide to Pamlico Sound, Wanchese Harbor, Shallowbag Bay Harbor and Albemarle Sound. Length of all channels within the Manteo (Shallowbag) Bay Project is approximately 25 miles.

CONFERENCE AMOUNT FOR FY 2010: $3,749,000

BUDGET FOR FY 2011: M: $3,300,000 **O**: $795,000 **T**: $4,095,000

RECOVERY ACT ALLOCATIONS TO DATE: $12,696,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,095,000 provides for project operations activities and hydrographic condition surveys approximately 2 to 3 times per month, and minimal maintenance dredging through Oregon Inlet and the project's interior channels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Council on Environmental Quality (CEQ), National Oceanic and Atmospheric Administration, and the Corps agreed in May 2003 that the proposed jetties on the Oregon Inlet portion of the project would not be constructed. Instead, the Corps developed alternative approaches for improving navigation. Several options were evaluated as an alternative to the jetties to achieve the project's purpose. The most effective locally preferred plan was to dredge a 400-foot widener for advanced maintenance. The work was accomplished in 2009 utilizing Emergency Supplemental funding and American Reinvestment and Recovery Act of 2009 funding. Maintenance dredging is essential to support the large commercial fishing fleet (160 vessels with 24 million pounds of seafood landings at an estimated value of $27 million) and traversing to and from Wanchese, NC. The U. S. Coast Guard utilizes this portion of the project to access the Oregon Inlet Coast Guard Station in support of Search and Rescue (950 missions through Oregon Inlet since 2000) and Homeland Security. Access to the non-designated harbors of refuge is essential during adverse weather conditions as the nearest coastal inlets are Hatteras Inlet, 55 miles to the south, and Norfolk, VA, 65 miles to the north.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Masonboro Inlet and Connecting Channels, NC

AUTHORIZATION: River and Harbor Act of 1912, as amended; Section 111, River and Harbor Act of 1968

LOCATION AND DESCRIPTION: The project is located on the southeastern coast of North Carolina in New Hanover County. The authorized project consists of a 14 feet deep by 400 feet wide channel across the ocean bar at Masonboro Inlet, with north and south jetties at the entrance, both at 12 feet deep and 90 feet wide to the channel of the Atlantic Intracoastal Waterway at Wrightsville Beach by way of Banks and Motte Channels; a turning basin, 15 feet deep, 300 feet wide, and 700 feet long on the east side of Banks Channel near Masonboro Inlet; and three 15-pile dolphins.

CONFERENCE AMOUNT FOR FY 2010: $2,186,000

BUDGET FOR FY 2011: M: $0 **O**: $50,000 **T**: $50,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $50,000 provides for hydrographic condition surveys for this critical harbor of refuge project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Repairs are planned for the south jetty at two locations to mitigate for a potential navigation hazard. Repairs to the landward end of the jetty are scheduled in FY 2010 using carry-in funding.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Mobile Harbor, AL

AUTHORIZATION: Section 104 of the River and Harbor Act of 3 September 1954 and previous acts. The Theodore Ship Channel was authorized by Section 201 of the 1965 Flood Control Act and modified by Section 112 of WRDA 1976.

LOCATION AND DESCRIPTION: The project is located in Mobile, Alabama. The project provides a 47 x 600 foot channel from the Gulf of Mexico into Mobile Bay, a 45 x 400 foot channel in the Bay to the McDuffie Coal terminal, a 40 x 500 foot channel in the River to the highway bridge, a 25 x 250-500 foot channel leading to and into Chickasaw Creek, and various smaller channels and turning basins for use by commercial, international and domestic marine traffic, including the Theodore Industrial Channel. The port of Mobile supports a major coal import/export facility supplying coal for all the power plants across the northern Gulf Coast as well as petroleum product, wood products, containers, etc.

CONFERENCE FOR FY 2010: **T**: $ 22,804,000

BUDGET FOR FY 2011: **M**: $23,210,000 **O**: $350,000 **T**: $23,560,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $23,560,000 will be used for maintenance dredging of the turning basin, bay channel, and river channel. Funds will also be used for disposal area maintenance surveys, water quality and endangered species coordination and operation and maintenance of tide gauges.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Mobile Harbor is the 10th largest port in the U.S. Funding for this project has been relatively flat for many years and the rising cost of dredging is limiting project maintenance and causes width and depth restrictions.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morehead City Harbor, NC

AUTHORIZATION: River and Harbor Act of 1958 and 1970, and Section 101 of the Water Resources Development Act of 1992

LOCATION AND DESCRIPTION: The project is located at Morehead City, in Carteret County, midway along the North Carolina coastline approximately 10 miles northwest of Cape Lookout. The project consists of a 47-foot deep by 450-foot wide entrance channel from the deep water in the Atlantic Ocean to the Beaufort Inlet gorge; a channel 45 feet deep by 400 to 600 feet wide from the gorge of Beaufort Inlet to the east facing berthing facilities of the North Carolina State Ports; and a channel and basin 35 feet deep with varying widths to the south and west facing berthing facilities.

CONFERENCE AMOUNT FOR FY 2010: $9,028,000

BUDGET FOR FY 2011: **M**: $3,575,000 **O**: $225,000 **T**: $3,800,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,800,000 provides for project operations and monthly hydrographic surveying; maintenance dredging within the inner harbor with upland disposal and the ocean bar with near-shore or shoreline disposal.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Morehead City Harbor project consists of approximately 5 miles of channels, which extend from the deep water in the Atlantic Ocean to the North Carolina State Port at Morehead City. Morehead City Harbor is a deep draft navigation project with 3.4 million commercial tonnage valued at $925 million annually. Project provides military support to Camp LeJeune (Marine Corps) and provides U. S. Coast Guard vessels access to the Coast Guard Base at Ft. Macon. This port supports the North Carolina State Ports Authority (bulk-cargo ships); NUCOR Steel; PCS Phosphate and commercial fishing vessels and recreational vessels.

Division: South Atlantic District: Wilmington
Project Name: Morehead City Harbor, NC

1 February 2010

SAD-199

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New River Inlet, NC

AUTHORIZATION: River and Harbor Acts of 1935, 1938 and 1948

LOCATION AND DESCRIPTION: The project is located in Onslow County adjacent to the Camp Lejeune Marine Corps Base. The project provides a channel 6-foot deep by 90-feet wide from the deep water of the Atlantic Ocean, through the inlet gorge, to the intersection of the Atlantic Intracoastal Waterway (AIWW) and a channel 12-feet deep by 90-feet wide from the intersection of the AIWW, extending north within the banks of the New River, and terminating just south of Hwy 24 in Jacksonville, North Carolina.

CONFERENCE AMOUNT FOR FY 2010: $665,000

BUDGET FOR FY 2011: M: $600,000 **O**: $0 **T**: $600,000

RECOVERY ACT ALLOCATION TO DATE: $843,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $600,000 provides for two 30-day maintenance dredging events of the New River entrance channel and the associated connecting channel to the Atlantic Intracoastal Waterway.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project is a critical harbor of refuge and provides support to the military at Camp LeJeune (Marine Corps) for their access through New River Inlet to the Atlantic Ocean. Approximately 60 commercial fishing vessels utilize the inlet and connecting channel project for access to harbors of refuge along the North Carolina coast. The project users include: commercial fishing vessels; recreational vessels; U.S. Army Corps of Engineers dredging vessels; U.S. Coast Guard Search and Rescue operations; charter fishing vessels and the Marine Corps.

Division: South Atlantic District: Wilmington
Project Name: New River Inlet, NC

1 February 2010

SAD-200

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Okatibbee Lake, MS

AUTHORIZATION: Flood Control Act of 23 October 1962 (H. Doc 549)

LOCATION AND DESCRIPTION: Okatibbee Lake is located seven miles northwest of Meridian, Mississippi, at mile 37.7 on the Okatibbee Creek.

CONFERENCE FOR FY 2010: **T**: $1,618,000

BUDGET FOR FY 2011: **M**: $595,000 **O**: $1,060,000 **T**: $1,655,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,907,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $809,000 will be used for operation of Okatibbee dam, reservoir, buildings, grounds, utilities, roads, bridges and other facilities and equipment. Funds will also be used for the collection of hydrological data.

Rec: $818,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and fishing areas. Funds will also be used for renovations at some facilities.

Hydro: N/A

ES: $ 28,000 will be used wildlife and forestry maintenance and project master plan.

WS: N/A

OTHER INFORMATION: Okatibbee Lake Project provides flood damage reduction for areas in Lauderdale/Clark Counties including the cities of Meridian and Enterprise, Mississippi.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Okeechobee Waterway (OWW), FL

AUTHORIZATION: 1945 River and Harbor Act, 1960 River and Harbor Act

LOCATION AND DESCRIPTION: The project provides a 155-mile long channel across the state from Fort Myers to Stuart. Maintained depth ranges from 8 feet to 10 feet. The waterway runs through Lake Okeechobee and consists of the Caloosahatchee River on the west side of the lake and the St. Lucie Canal on the east side. Included in the project are navigation locks at Ortona, Moore Haven, and St. Lucie. Additional locks at W. P. Franklin and Port Mayaca authorized under the Central and Southern Florida Project are also located within the waterway. Each lock also provides recreational facilities for public use year round. The waterway serves navigation, as well as flood control, since release of excess water from Lake Okeechobee can be made into the St. Lucie Canal and the Caloosahatchee River.

CONFERENCE AMOUNT FOR FY 2010: $2,240,000

BUDGET FOR FY 2011: M: $436,000 **O**: $2,008,000 **T**: $2,444,000

RECOVERY ACT ALLOCATIONS TO DATE: $3,168,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,209,000 will provide for annual operation of St. Lucie, Moore Haven and Ortona locks, including funding for labor, facilities security and contract support. Funding provides for the minimum level of service. The Okeechobee Waterway is a popular and heavily used waterway during normal times. It is primarily used for recreation, but it is also used for commercial navigation, including tug/barge combinations and commercial fishing vessels. The average annual National Economic Development (NED) impact to navigation and recreation of the Okeechobee Waterway is over 22 million dollars.

FRM: N/A

Rec: $795,000 will provide for operation and maintenance of vistor and recreation facilities serving over two million visitors along the waterway as associated with the OWW project. With an annual visitation estimated at approximately 6 million and a net economic development value of over $55 million annually, the Okeechobee Waterway is a valuable resource to the south Florida area and the nation. The Corps manages 10 recreation areas along the OWW, encompassing 394 acres and offering 122 campsites, 5 boat ramps, 3 visitor centers, one swim beach, 112 miles of trails, 6 reservable picnic shelters, playgrounds, fishing piers, and other amenities. Lake Okeechobee has an excellent reputation for fishing and hosts more than 500 fishing tournaments each year. Visitation in FY08 totaled 6.2 million with $384,000 in user fee revenues and $392,000 in volunteer services provided. Current facility conditions average a 4.7 on a scale from 1 to 7 (poor to excellent).

Hydro: N/A

Division: South Atlantic District: Jacksonville
Project Name: Okeechobee Waterway, FL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

ES: $440,000 will provide for managing habitat, fire, wildlife, fisheries, aquatic plants, endangered and protected species, as well as controlling encroachments, shoreline management, boundary line surveillance, and cultural resources protection on OWW Project lands and waters. The current ES program includes the Okeechobee Waterway, as well as approximately 467,000 lake acres. Priority work includes management of special status species, invasive species control, and shoreline/encroachment management.

WS: N/A

OTHER INFORMATION: There are currently six special status species with FWS Recovery Plans inhabiting project lands and waters. These include the Florida manatee, Everglades snail kite, Okeechobee gourd, Eastern Indigo snake; Audubon's crested caracara, and the wood stork. Hundreds of acres of OWW project waters and lands are infested with invasive species. Target species for removal include Brazilian pepper, Australian pine, air potato, Melaleuca, water hyacinth, water lettuce, alligator weed, cogon grass, sailfin catfish, fire ant, wild boar, and giant apple snail. The OWW and C&SF projects contain 402 miles of shoreline and 654 miles of boundary. Management of the extensive shoreline of the projects ensures environmental protection, visitor safety, and restoration of shoreline where degradation has occurred through private exclusive use. There are approximately 400 active permits currently.

Division: South Atlantic District: Jacksonville
Project Name: Okeechobee Waterway, FL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Palm Beach Harbor, FL

AUTHORIZATION: River and Harbor Act of 1960

LOCATION AND DESCRIPTION: The project is located in Palm Beach County on the lower east coast of Florida. Palm Beach Harbor provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. Length of project is about 1.6 miles.

CONFERENCE AMOUNT FOR FY 2010: $3,065,000

BUDGET FOR FY 2011: M: $2,410,000 **O:** $100,000 **T:** $2,510,000

RECOVERY ACT ALLOCATIONS TO DATE: $4,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,510,000 - Maintenance dredging contract will be scoped to comply with fiscal year 2011 budget amount. The contract will require dredging of the most critically shoaled area of the 1.6 mile waterway, with particular emphasis on the entrance channel. Also design efforts for the FY 2012 event will be performed during FY 2011.

With first winter storm, the project will lose three feet or more of channel depth resulting in significant light loading of foreign and domestic shipments of fresh produce and goods. Federal channel also provides access for fuel oil to South Florida power plants.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Panama City Harbor, FL

AUTHORIZATION: River and Harbor Act of 30 June 1948 and previous acts. Rehabilitation of the jetties was authorized by the Chief of Engineers 6 March 1971.

LOCATION AND DESCRIPTION: Panama City Harbor is located on the northwest coast of Florida. The project consists of four channels: an approach channel 450 feet wide x 38 feet deep, an entrance channel 300 feet wide x 36 feet deep, the Watson Bayou Channel 100 feet wide x 10 feet deep and the Grand Lagoon Channel 100 feet wide x 8 feet deep.

CONFERENCE FOR FY 2010: **T**: $1,953,000

BUDGET FOR FY 2011: **M**: $0 **O**: $55,000 **T**: $55,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $55,000 will be used for dredging the outer channel reaches, dredging surveys and the Dredge Material Management Plan.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Over 50% of the tonnage entering this port requires the full project depth. The tonnage through this port has expanded dramatically since the project was deepened in 2004 and has held steady these past two years in spite of the down turn in the economy.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pascagoula Harbor, MS

AUTHORIZATION: River and Harbor Act 1913, 1915, 1952, 1954, 1958, 1960, 1962 and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: The Pascagoula Harbor navigation project is located in Jackson County, MS. The project provides for a 44 feet deep x 600 feet wide channel from the Gulf of Mexico across Ship Island Bar and into Mississippi Sound, a 42 feet deep x 350 feet wide channel in the Sound transitioning to 2 main channels, a 42 feet deep x 350 feet wide channel leading to Bayou Casotte and a 38 feet deep x 350 feet wide channel leading to the Pascagoula River.

CONFERENCE FOR FY 2010: **T**: $9,500,000

BUDGET FOR FY 2011: **M**: $5,420,000 **O**: $100,000 **T**: $5,520,000

RECOVERY ACT ALLOCATIONS TO DATE: $1,370,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,520,000 will be used for maintenance dredging, surveys, water quality and endangered species coordination, sediment testing and operation and maintenance of tide gauges.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports a major Gulf refinery (Chevron), a new Liquified Natural Gas plant and numerous major shipbuilding industries. Project costs have escalated in recent years due to increased dredging costs.

Division: South Atlantic District: Mobile
Project Name: Pascagoula Harbor, MS

1 February 2010

SAD-206

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pensacola Harbor, FL

AUTHORIZATION: River and Harbor Act of 23 October 1962 and previous acts

LOCATION AND DESCRIPTION: Pensacola Harbor is located on Pensacola Bay in northwest Florida. The project consists of a 35 feet deep x 500 feet wide main entrance channel, and 33 feet deep x 300 - 500 feet wide bay approach, and inner harbor channels. The Bayou Chico project is located within Pensacola Bay in Pensacola, Florida and provides for an entrance channel 15 feet deep x 100 feet wide, thence to a 14 feet deep x 75 feet wide channel terminating into a turning basin 14 feet deep x 500 feet wide and 500 feet long. The port has seen an increase in usage by cement and aggregate ships.

CONFERENCE FOR FY 2010: $ 67,000

BUDGET FOR FY 2011: **M**: $0 **O**: $67,000 **T**: $67,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $67,000 will be used for maintenance dredging, surveys and water quality compliance activities.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This is a high use deep draft project that typically requires little maintenance to provide project depths. Maintenance cost per ton of cargo shipped is very low, making this project a good value for the return on investment. The project also serves as the entrance channel to the Pensacola Naval Air Station.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Philpott Lake, VA and NC

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Smith River about 45 miles above its junction with Dan River in Franklin and Henry Counties, VA. The project provides flood risk management, recreation, hydropower, and other purposes. The project includes a concrete gravity dam about 900 feet long with a maximum height of 220 feet. Reservoir is operated as a unit of a coordinated reservoir system for flood risk management in the Roanoke River Basin, generation of hydroelectric power, power generating regulation of low-water flow, and for other purposes. The project has an installed capacity of 14,000 kilowatts.

CONFERENCE AMOUNT FOR FY 2010: $5,358,000

BUDGET FOR FY 2011: **M**: $2,870,000 **O**: $3,526,000 **T**: $6,396,000

RECOVERY ACT ALLOCATION TO DATE: $3,159,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $970,000 provides for critical routine maintenance for water management in conformance to water control plans and dam safety activities, and equipment and facilities associated with storage and release of water.

Rec: $1,896,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: $3,327,000 provides for maximizing peak unit availability while limiting forced outages, complance with the North American Electric Reliability Corporation reliability standards, and completing transformer installation.

ES: $203,000 provides for operation, management and conservation of existing vegetation, forests and fish and wildlife. Also, funding provides for management and required informal consultation with U.S. Fish and Wildlife Service necessary for compliance with the Endangered Species Act for the Roanoke Logperch.

WS: N/A

OTHER INFORMATION: Funding under the American Recovery and Reinvestment Act of 2009 has been utilized to address a portion of the maintenance backlog at this project. Recovery Act funding is also being utilized to continue making recreation areas more safe, sustainable, and enjoyable opportunities for the visiting public.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richard B. Russell Lake, GA and SC

AUTHORIZATION: Flood Control Act of 1950 and 1958; Water Resources Development Act of 1976

LOCATION AND DESCRIPTION: The dam is located on the Savannah River, near Calhoun Falls, SC, and is 59 miles north of Augusta, GA. The dam has a concrete section 1,884 feet long with a maximum height of 195 feet and a controlled spillway 590 feet long. It provides approximately 1.02 million acre-feet of storage of which 126,800 acre-feet are allocated for hydropower; 140,000 for flood control, and 899,400 for dead storage. There are 542 miles of shoreline, 26,650 acres of water, and 26,500 acres of public land. The Richard B. Russell multiple purpose project is one of only two major hydropower projects in the Corps of Engineers with pump-back capabilities.

CONFERENCE AMOUNT FOR FY2010: $3,550,000

BUDGET FOR FY2011: **M:** $ 4,052,000 **O:** $5,335,000 **T:** $ 9,387,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $60,000 provides routine operations and maintenance for navigation and joint cost under navigation business line.

FRM: $258,000 provides routine Operation and Maintenance of the spillway gates, sluice gates and associated electrical and mechanical equipment. Funding enables annual Dam Safety required inspections, instrumentation, monitoring, studies and failure exercises.

Rec: $224,000 provides routine operations and maintenance for the most critical, time-sensitive, least-cost activities to provide acceptable service levels in recreation areas including day use parks, beaches, campgrounds and boat ramps. Areas would operate on traditional schedules. These funds would maintain positive customer satisfaction levels and provide safe, stable and sustainable facilities for the visiting public.

Hydro: $7,861,000 provides routine operation and maintenance of the hydropower plant. Includes funding for operations and maintenance staff, field engineering, replacement parts, dissolved oxygen to mitigate issues associated with pump-back operations and funding needed to comply with NERC reliability standards. Operation and maintenance activities are critical to limiting forced outages to 2%, maximizing peak unit availability, and providing reliable energy to the Southeastern Power Administration's federal power customers.

ES: $900,000 – A total of $544,000 is projected for mitigation payments to state agencies for managing congressionally authorized mitigation lands and providing 22,000 lbs of trout (PL 99-662). The remaining funds will be used for labor and contracts for forest, fish and wildlife management on the 20,590 acres of Russell collar land mitigation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

WS: $84,000 - Water supply is an authorized purpose and numerous adjacent communities withdraw water presently. Funding would include the enforcement of specific conditions of the permits. Permitting cannot exceed 50,000 acre-feet without approval by the Secretary of the Army and a reallocation of water for the project authorized purposes.

OTHER INFORMATION: None

Division: South Atlantic District: Savannah
Project Name: Richard B. Russell Lake, GA and SC

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Rollinson Channel, NC

AUTHORIZATION: River and Harbor Act of 1935

LOCATION AND DESCRIPTION: The Rollinson Channel project is located in Dare County just inside Hatteras Inlet, NC. The project provides a 12-foot channel from Pamlico Sound to Hatteras Island and a 10-foot deep channel from Hatteras Island to Hatteras Inlet, both with 100-foot channel widths.

CONFERENCE AMOUNT FOR FY 2010: $50,000

BUDGET FOR FY 2011: M: $0 **O**: $50,000 **T**: $50,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $50,000 provides for environmental monitoring required by state of North Carolina and Federal resource agencies to continue operations of this project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: North Carolina State Ferry System; commercial fishing vessels and recreational vessels; and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: San Juan Harbor, PR

AUTHORIZATION: WRDA 1996

LOCATION AND DESCRIPTION: This is a federal deep draft navigation project with authorizations dating back to 1917, the most recent for channel deepening in WRDA 1996. San Juan Harbor is located within the San Juan Metropolitan area along the north coast of Puerto Rico. It is the Commonwealth's principle port, handling over 75 percent of the island's non-petroleum waterborne commerce and is the only harbor on the north coast affording protection in all types of weather. Over 13 million tons of commerce now moves through the harbor annually. The project consists of a Bar Channel with depths stepping from 56 to 49 feet, a 40-foot deep Anegado channel, a 40-foot deep Army Terminal Channel, a 39-foot deep Puerto Nuevo Channel, a 34-foot deep Sabana Approach, a 36-foot deep Graving Dock Channel, a 30-foot deep Graving Dock Turning Basin, a 36-foot deep San Antonio Channel, a 30-foot deep extension to the San Antonio Channel, two 30-foot deep Cruise Ship Basins, a 36 foot deep Anchorage Area E, and a 30-foot deep Anchorage area F. The current maintenance-dredging project consists of the removal of approximately 300,000 cubic yards of shoals located in the following areas: Graving Dock Turning Basin, Anchorage Area E, Anchorage Area F, and the two cruise ship basins.

CONFERENCE AMOUNT FOR FY 2010: $1,140,000

BUDGET FOR FY 2011: M: $3,600,000 **O**: $100,000 **T**: $3,700,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,700,000 will be used to advertise and award a contract for the next maintenance dredging of the harbor.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah Harbor, GA

AUTHORIZATION: WRDA 92, Sec.101 (10), Oct 31, 1992

LOCATION AND DESCRIPTION: The deep draft navigation project consists of a bar channel 11.5 miles long, 44 feet deep and 600 feet wide, an inner harbor channel 21miles long, 42 feet deep and 500 feet wide with a sediment basin that allows removal of harbor sediment at a reduced cost. The Savannah Harbor handles the largest number of containers of any port on the South Atlantic coast and is fourth in the nation in import and export of container cargo. The harbor is also the rapid deployment Port of Embarkation for the 3rd Infantry Division and other elements of the 18th Airborne Corps.

CONFERENCE AMOUNT FOR FY2010: $13,482,000

BUDGET FOR FY2011: **M**: $11,063,000 **O**: $1,399,000 **T**: $12,462,000

RECOVERY ACT ALLOCATIONS THRU 31 DEC 09: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $12,462,000 provides for routine operation and maintenance for navigation, dredging with upland and open water placement, critical environmental monitoring and coordination with federal and state resource agencies, critical water quality montoring, and real estate costs to resolve encroachments. These funds would improve navigation performance by increasing the availability and reliability by 25% and would reduce delays to shipping and increase safety for the navigation community using the project.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah Harbor Sediment Control Works, GA & SC

AUTHORIZATION: Public Law 89-208 dated 27 October 1965

LOCATION AND DESCRIPTION: The Savannah National Wildlife Refuge lies on both sides of the South Carolina and Georgia sides of the Savannah River just upriver from the City of Savannah, Georgia. A 3,000 acres impoundment system managed for migratory wading birds and waterfowl lies within the Refuge. The Freshwater Control System consists of two major water control structures serving as inlet and outlet for fresh water, a water supply channel surrounding interior impoundments connecting the two major structures, seventeen inner control structures on Federal land and eight control structures on private lands served by the water supply channel, and dikes adjacent to the supply channel.

CONFERENCE AMOUNT FOR FY2010: $0

BUDGET FOR FY2011: M: $6,000,000 **O**: $0 **T**: $6,000,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $6,000,000 provides for rehabilitation of two major water control structures consisting of reinforced concrete superstructure, 48-inch corrugated metal pipes and a combination of lift and flap gates with new 48-inch high density polyethylene pipes and new lift and flap gates on the fresh water control system.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Savannah River below Augusta, GA

AUTHORIZATION: Public Law 70-101

LOCATION AND DESCRIPTION: The project begins at the end of Savannah Harbor (mile 21.31) and continues to river mile 202.6 at Augusta, GA. The New Savannah Bluff Lock and Dam is located 187 river miles above Savannah Harbor, Georgia and is approximately 13 miles downstream of Augusta, Georgia. The structure's original purpose was to provide for passage of commercial navigation on the Savannah River below Augusta Navigation Project. Commercial navigation through the lock ceased in the early 1980s and the lock is only used intermittently by recreational vessels. Since 1987, the City of Augusta, Georgia has operated the lock under a lease agreement with the Corps of Engineers.

CONFERENCE AMOUNT FOR FY2010: $401,000

BUDGET FOR FY2011: **M**: $ 120,000 **O**: $110,000 **T**: $230,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $230,000 provides for caretaker operation and maintenance for navigation, critical maintenance support services, annual condition survey of the entire channel, real estate cost to manage lease agreements and encroachments.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Silver Lake Harbor, NC

AUTHORIZATION: Rivers and Harbor Act of 1930

LOCATION AND DESCRIPTION: The Silver Lake Harbor project is located in Hyde County just inside of Ocracoke Inlet, NC. The project provides a 12-foot channel from deep water in Pamlico Sound to, and including, an anchorage basin of the same depth in Silver Lake Harbor at Ocracoke, with widths of 150 feet across the Big Foot Slough bar and 60 feet in the entrance channel. Silver Lake Harbor is classified as a subsistence harbor, where supplies and personnel can only access the island via ferry (i.e. there is no vehicle access).

CONFERENCE AMOUNT FOR FY 2010: $238,000

BUDGET FOR FY 2011: M: $150,000 **O**: $0 **T**: $150,000

RECOVERY ACT ALLOCATION TO DATE: $496,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

N: $150,000 provides for operations, environmental monitoring and one maintenance dredging cycle within the Silver Lake Harbor channels.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This project supports the following users: North Carolina Ferry System; commercial fishing vessels and recreational vessels; and the U.S. Coast Guard. The U.S. Coast Guard utilizes this project to perform search and rescue and homeland security missions.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: St. Lucie Inlet, FL

AUTHORIZATION: Section 201 of the 1974 River and Harbor Act

LOCATION AND DESCRIPTION: St. Lucie Inlet is located in Martin County on the Atlantic coast of Florida, approximately midway down the state. The project provides for a channel 16 feet deep and 300 feet wide, tapering to 10 feet deep and 150 feet wide through the inlet, and a channel 7 feet deep and 100 feet wide between the inlet and the Intracoastal Waterway. Project modifications were authorized in 1974. These modifications included a sediment impoundment basin adjacent to the north jetty, extension of the north jetty, including 500-foot weir section, a detached breakwater immediately south of the entrance channel, and construction of a south jetty. However, the weir section has not been constructed and the south jetty was constructed 200 feet short of its authorized length.

CONFERENCE AMOUNT FOR FY 2010: $333,000

BUDGET FOR FY 2011: **M**: $250,000 **O**: $0 **T**: $250,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $250,000 - The maintenance dredging event will be advertised and completed in 2011. The project will be scoped to dredge the most severely shoaled areas with the funds provided.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The impoundment basin is currently full and material is migrating into the navigation channel. The U.S. Coast Guard (USCG) will begin moving channel markers and issuing notices to mariners concerning draft restrictions. The USCG actions will hold for a few months in FY2010 while P&S are completed. Passage into St. Lucie Inlet would be impassable for vessels with probable endangerment of life. St. Lucie Inlet offers ingress and egress for boat/barge traffic through the Okeechobee Waterway. St. Lucie Inlet is very unsafe when there is shallow water and Loss of life has occurred due to groundings and crashes. The inlet is identified as one of the most dangerous inlets on the East Coast.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Tampa Harbor, FL

AUTHORIZATION: Energy and Water Act November 7, 2003, Report No. 108-357

LOCATION AND DESCRIPTION: The total project consists of a channel from the Gulf of Mexico to Port Tampa and Tampa. Project features include the entrance channel from the Gulf of Mexico to Hillsborough Bay. At Hillsborough Bay, the channel splits into two legs, with one continuing west to Port Tampa and the other east to Gadsden Point. The west channel continues to Port Tampa and ends in a turning basin. The west channel to Gadsden Point includes the Alafia River, Port Sutton, East Bay, and Seddon Channels. The project depth varies from 45 feet in the entrance channel at the Egmont Bar Channel to 30 feet in the Alafia River. Length of project is about 67 miles including 3.6 miles in the Alafia River. The Port of Tampa has more cargo tonnage than all other Florida ports combined.

CONFERENCE AMOUNT FOR FY 2010: $5,341,000

BUDGET FOR FY 2011: M: $5,000,000 **O**: $200,000 **T**: $5,200,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,200,000 - Maintenance dredging contract will be scoped to comply with fiscal year 2011 budget amount. The contract will require dredging of the most critically shoaled areas with particular emphasis on Hillsboro Cut C. Also update of the Dredge Material Management Plan (DMMP) will be completed. These funds would improve navigation performance by increasing the availability and reliability of the channel through maintenance dredging and the DMMP update will provide a decision document on which a Project Partnership Agreements can be executed for two dredge material managment areas.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: South Atlantic District: Jacksonville
Project Name: Tampa Harbor, FL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway, AL & MS

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The project extends from Demopolis, AL to the Tennessee River at the common boundary of Alabama, Mississippi, and Tennessee. The project includes a 234-mile navigation channel varying from 9 -12 feet deep x 300 feet wide, 10 locks and dams, and numerous recreation areas.

CONFERENCE FOR FY 2010: $24,081,000

BUDGET FOR FY 2011: **M**: $10,512,000 **O**: $13,255,000 **T**: $23,767,000

RECOVERY ACT ALLOCATIONS TO DATE: $12,908,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $16,891,000 will be used for lock and dam maintenance and operation, periodic inspection and continuing evaluation of completed civil works structures, maintenance dredging, surveys and maintenance of SCADA - spell out. This waterway serves as an important, high use navigational waterway.

FRM: N/A

Rec: $5,436,000 will be used for rehabilitation, repair and maintenance of recreation facilities, including campgrounds, day use parks, fishing decks and boat ramp facilities. This is to maintain a level of service that will ensure safe recreation experiences and clean, orderly facilities.

Hydro: N/A

ES: $1,440,000 will be used for annual, intensive wildlife management on project lands, water quality monitoring below dams, boundary line surveys and cultural resource management.

WS: N/A

OTHER INFORMATION: The project employs approximately 100 -112 full time personnel and 12 – 17 part time personnel. The project also helps support numerous district office personnel and a large O&M contractor consisting of approximately 85 employees. Funding is also required to support the operation and maintenance of a 234 mile navigation channel, 7 Class-A campgrounds, 3 visitor centers, 1 historical landmark site, 40 boat ramps, 9 large public-use areas, 72,500 acres of project wildlife mitigation land, 2 office buildings and 10 locks and dams. Visitation to the project exceeds two million annually. By connecting the Tennessee River to the Tombigbee River, the Waterway provides a shortcut of as much as 650 miles for vessels traveling from inland waterways in Middle America to the Gulf of Mexico.

Division: South Atlantic District: Mobile
Project Name: Tennessee-Tombigbee Waterway, AL & MS

1 February 2010

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tennessee-Tombigbee Waterway Wildlife Mitigation, AL & MS

AUTHORIZATION: Water Resources Development Act 1986, 1992

LOCATION AND DESCRIPTION: The project consists of three major components: (1) acquisition and management of 88,000 acres of separable mitigation lands at specific locations in Alabama and Mississippi; (2) management of an additional 93,000 acres of existing Corps land at specific locations in Alabama and Mississippi; (3) implementation of an Initial Development Program on 181,000 acres of land comprising the Mitigation Program. Most of the mitigation lands are organized into contiguous management units distributed between 10 wildlife management areas (7 in Mississippi and 3 in Alabama). The State wildlife management agencies are responsible for the management of all but 50,000 acres that are managed by the Corps.

CONFERENCE FOR FY 2010: $ 2,500,000

BUDGET FOR FY 2011: M: $0 **O**: $1,900,000 **T**: $1,900,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: N/A

Rec: N/A

Hydro: N/A

ES: $1,900,000 will be used to reimburse the states of Mississippi and Alabama for costs incurred for intensive wildlife management as mandated by the Water Resources Development Act 1986.

WS: N/A

OTHER INFORMATION: Funding will support oversight and management by state wildlife agencies in Mississippi and Alabama for a total of ten Wildlife Management Areas (WMAs) – seven WMAs in the state of Mississippi and three WMAs in the state of Alabama. These WMAs promote long-term public access, use, conversation and management of natural resources, particularly wildlife, consistent with the Corps Mission Mandate for Natural Resources Management.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Town Creek, SC

AUTHORIZATION: P.L. 86-645 Section 107

LOCATION AND DESCRIPTION: Town Creek is located one mile southwest of McClellanville, SC. The Town of McClellanville, located on Jeremy Creek, is home port to a large fleet of shrimp boats. The project provides an inner channel ten feet deep by 80 feet wide from the Atlantic Intracoastal Waterway to the mouth of Five Fathom Creek, a distance of 6.2 miles and also includes an entrance channel twelve feet deep by 100 feet wide across the ocean bar, a distance of 4.0 miles.

CONFERENCE FOR FY 2010: T: $0

BUDGET FOR FY 2011: M: $380,000 **O**: $0 **T**: $380,000

RECOVERY ACT ALLOCATIONS TO DATE: $0

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $380,000 provides for dredging of the entrance channel. These funds would ensure channel availability and access to the ocean for commercial vessels prior to the start of shrimp season in June 2010.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Town of McClellanville, located on Jeremy Creek, is homeport to a large fleet of shrimp boats. Today, the principal economic activity is commercial fishing. The Town of McClellanville's economy is dependent on the seafood industry and unimpeded access to the ocean. If access to the open ocean becomes impassable to commercial shrimp trawlers the next closest access is approximately 50 miles away. Alternate access to the ocean from this location requires traveling the AIWW, and since the AIWW is not being maintained this could in effect ground the vessels.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: W. Kerr Scott Dam and Reservoir, NC

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The project is located on the Yadkin River about 6 miles upstream from Wilkesboro, NC. The project provides flood risk management, recreation, water supply and other purposes. The project includes a rolled earth-fill dam over 1,700 feet long with a maximum height of 148 feet above the streambed. A spillway is located near the north abutment of the dam in a rock cut.

CONFERENCE AMOUNT FOR FY 2010: $3,251,000

BUDGET FOR FY 2011: **M**: $1,098,000 **O**: $2,493,000 **T**: $3,591,000

RECOVERY ACT ALLOCATION TO DATE: $2,792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,199,000 provides for critical routine annual operation of dam and associated structures, project administration, vehicles, floating plant, heavy equipment rental, water control management, and yard support and supplies. Funding also provides for critical routine annual maintenance of dam and structures, required maintenance of intake control tower, electric and hydraulic system, instrumentation, pumps and motors, and shop and maintenance area.

Rec: $2,214,000 provides for operation and maintenance of existing recreation facilities to maintain minimum level of service to the visiting public.

Hydro: N/A

ES: $178,000 provides for compliance with natural resource mandates, in accordance with the operations management plan.

WS: N/A

OTHER INFORMATION: Funding under the American Recovery and Reinvestment Act of 2009 has been utilized to address a portion of the maintenance backlog at this project. Recovery Act funding is also being utilized to continue making recreation areas more safe, sustainable, and enjoyable opportunities for the visiting public.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Walter F. George Lock and Dam, AL & GA

AUTHORIZATION: Section 2 of the River and Harbor Act of 1945, as amended

LOCATION AND DESCRIPTION: The project is located at mile 75.2 on the Chattahoochee River, 1.5 miles north of Ft. Gaines, Georgia, in Clay County, Georgia and Henry County, Alabama. The project includes a hydroelectric powerhouse, 28 recreation areas, navigation lock, and 45,000-acre reservoir with 640 miles of shoreline.

CONFERENCE FOR FY 2010: $8,526,000

BUDGET FOR FY 2011: **M**: $3,064,000 **O**: $5,330,000 **T**: $8,394,000

RECOVERY ACT ALLOCATIONS TO DATE: $13,860,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $978,000 will be used for maintenance of the structure and equipment associated with the control releases of water, dam safety activities and other caretaker status activities.

FRM: N/A

Rec: $2,836,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps. Funds will also be used for repairs, replacement and renovation of some recreational equipment and facilities.

Hydro: $4,280,000 will be used to provide routine preventative maintenance to accomplish the project mission by limiting forced outages and maximizing peak unit availability. This is essential to meeting performance goals, customer satisfaction, and public health and safety requirements.

ES: $300,000 will be used for implementation of the shoreline management program, the forest management program, the wildlife habitat program, the aquatic weed control program, for cultural resource activities and to update the master plan.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: West Point Dam and Lake, GA & AL

AUTHORIZATION: Flood Control Act of 23 October 1963

LOCATION AND DESCRIPTION: The project is located approximately 70 miles southwest of Atlanta, Georgia on the Chattahoochee River in Troup and Heard Counties, Georgia and Chambers County, Alabama. The project includes a hydroelectric powerhouse, a 26,000-acre flood damage reduction reservoir with over 500 miles of shoreline and 37 recreation facilities.

CONFERENCE FOR FY 2010: $ 9,115,000

BUDGET FOR FY 2011: **M**: $4,174,000 **O**: $4,671,000 **T**: $8,845,000

RECOVERY ACT ALLOCATIONS TO DATE: $12,189,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $25,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water.

FRM: $643,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water and dam safety activities.

Rec: $3,501,000 will be used for operation and maintenance of recreational facilities including campgrounds, day use areas, and boat ramps. Funds will also be used for repairs, replacement and renovation of some recreational equipment and facilities.

Hydro: $3,951,000 will be used for operation and maintenance of structures and equipment associated with the controlled release and storage of water. Routine preventive maintenance is critical for meeting performance goals and providing peaking power with limited forced outages.

ES: $725,000 will be used for environmental stewardship of fee owned acreage, natural resources management, protection of wildlife, cultural resources activities and an update to the master plan.

WS: N/A

OTHER INFORMATION: This project is part of the Apalachicola-Chattahoochee-Flint (ACF) river system and has received praise from the public for the recreational opportunities provided at the project and for the flood risk reduction realized during the heavy rains and floods of 2009.

Division: South Atlantic District: Mobile
Project Name: West Point Dam and Lake, GA & AL

1 February 2010

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Wilmington Harbor, NC

AUTHORIZATION: River and Harbor Acts of 1930, 1945, 1950, 1962, 1964; Section 107 of the River and Harbor Act of 1960; WRDA 1986, and WRDA 1996

LOCATION AND DESCRIPTION: The project is located on the southeastern coast of North Carolina in Brunswick and New Hanover counties and provides for a channel, 44 feet deep through the Ocean Bar and 42 feet deep to the upper end of the Anchorage Basin at Wilmington. Upstream of this point, the project is 38 feet deep to the Highway 133 bridge; 32 feet deep to the Hilton Bridge over the Northeast Cape Fear River; and 25 feet deep from the Hilton Bridge to a point 1-2/3 miles above. The project also includes a northwestward connecting channel, 12 feet deep, from the Atlantic Intracoastal Waterway at Snow's Cut to the main river channel.

CONFERENCE AMOUNT FOR FY 2010: $11,551,000

BUDGET FOR FY 2011: M: $11,297,000 **O**: $950,000 **T**: $12,247,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011: $0

N: $12,247,000 provides the following maintenance activities: perform Anchorage Basin maintenance dredging with upland disposal to Eagle Island; perform Outer Ocean Bar maintenance dredging with non-shoreline quality material disposed in the Ocean Dredged Material Disposal Site; conduct project condition surveys; debris removal; mosquito control; and to produce plans and specifications for the upcoming FY 2012 maintenace dredging contracts.

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Waterborne commerce on this project was 8.0, 8.4 and 7.9 million tons, respectively, for the period 2005-2007. The major commodities imported through the Wilmington Harbor project are salt, chrome ore, fertilizer materials, basic chemicals, asphalt, alcohols and cement with major exports being tobacco, wood pulp and dimethyl terephthalate fibers. The Port of Wilmington handled 173,111 loaded containers in 2007, 204,896 in 2008, and 194,111 in 2009. Project users include Transportation Command, Military Ocean Terminal Sunny Point (MOTSU); North Carolina State Ports Authority; APEX Oil Company; Exxon Mobil: National Gypsum; Colonial Oil; Amerada Hess; Kinder-Morgan Terminal, Inc.; Cape Fear Bulk; VOPAK; ADM Pharmaceuticals; and the US Coast Guard Cutter, DILIGENCE.

SOUTH PACIFIC DIVISION

SOUTH PACIFIC DIVISION
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FLOOD RISK MANAGEMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (Flood and Coastal Storm Damage Reduction)							
Berryessa Creek, CA Sacramento District	4,563,000	0	377,000	96,000	0	500,000	TBD

The Berryessa Creek watershed is located in Santa Clara County, California, south of San Francisco Bay. Berryessa Creek is a tributary to the Coyote Creek system, which flows into the southernmost end of San Francisco Bay. Berryessa Creek flows west out of the Diablo Range and into the residential neighborhoods of San Jose and Milpitas, finally turning north through industrial portions of Milpitas before joining Lower Penitencia Creek, and then into Coyote Creek. The Coyote Creek Element of the Coyote and Berryessa Creeks Project was physically complete in April 1997. The Berryessa Creek Element consists of approximately 4 miles of channel improvements and upgrades to existing berms for flood protection in a densely populated and industrialized area within the cities of Milpitas and San Jose. Recent flood events were in 1982, 1983, and 1998, with the 1998 event resulting in significant property damage. The project was authorized for construction in the early 1990s but due to changing environmental needs, sponsor's environmental concerns and local input, the authorized plan was deemed unacceptable. In coordination with resource agencies, a General Reevaluation Report/Environmental Impact Statement (GRR/EIS) is being prepared for the Berryessa Creek element, which will include an updated cost estimate. The intent of the redesign is to be within the current authorization. The Santa Clara Valley Water District, the local sponsor, understands the cost-sharing requirements during preconstruction, engineering and design (PED) and is prepared to execute a cost-sharing agreement in April 2011. PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25 percent non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	Total	Estimated Preconstruction	
Engineering and Design Costs	$6,084,000	Engineering and Design Costs	$6,084,000
Initial Federal Share	4,563,000	Ultimate Federal Share	3,955,000
Initial Non-Federal Share	1,521,000	Ultimate Non-Federal Share	2,129,000

The project is authorized for construction by Section 101(b) of the Water Resources Development Act of 1990 and Section 2855 of the National Defense Authorization Act for FY 1994. Funds requested for Fiscal Year 2010 are being used to complete the General Reevaluation Report/Environmental Impact Statement. Funds requested for FY 2011 will be used continue into preconstruction, engineering and design. The preconstruction engineering and design phase completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
California Coastal Sediment Master Plan, CA Los Angeles District	7,100,000	1,300,000	340,000	822,000	762,000	900,000	TBD

The study area encompasses the entire California coastline, including the nearshore ocean environment and the coastal watersheds. California has approximately 1,100 miles of coastline, 86% of this valuable resource is actively eroding due to natural and human induced alteration in the sediments cycle. Navigation and shoreline structures, along with implementation of water control projects, have contributed significantly in affecting total yield and movement of sediments to and along the coast. The purpose of the study is to develop a comprehensive plan for the management, restoration, protection, and preservation of the sediment resources along the coast of California. The study will evaluate regional alternatives for reducing damages from coastal storms; increasing the natural sediment supply to the coast through dam removal and other means; restoring aquatic ecosystems; and identifying potential sources of sediment, such as material dredged from ports and harbors. The Master Plan will provide Federal and non-Federal entities with an adaptive, programmatic road map to plan and program potential future coastal resources projects. The Master Plan will allow these entities to develop water resources projects within a system-oriented context where data can be easily shared and technical expertise and tools can be efficiently directed to solve coastal resources problems on a regional basis. A Geographic Information System (GIS) -based decision support system for economic optimization will be developed to assist Federal, State, and local decision makers in identifying, ranking, and selecting projects for program investment that would yield significant regional benefits, relative to costs. Ultimately, the Master Plan will allow for minimizing the number of discrete water resources projects by regionalizing solutions that holistically address individual problem areas. Any subsequent regionalized projects recommended in the Master Plan will be considered in collaboration with other Federal and non-Federal agencies, including USEPA, California State Resources Agency, NOAA, regional and local governments, and USGS. The Feasibility Cost Sharing Agreement was signed in September 2005.

Fiscal Year 2010 are being used to continue the feasibility phase of the study, develop a web-based mapping system, continue building the GIS database and decision support applications, develop additional Regional Sediment Management Plans, including environmental documents to support these plans, incorporate state-led efforts and analysis started in Fiscal Year 2006, and hold State-wide multiple public involvement meetings. Funds requested for Fiscal Year 2011 will be used to continue execution of Regional Sediment Management Plans and Technical Tools for remaining regions. The estimated cost of the feasibility phase is $13,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$14,000,000
Reconnaissance Phase (Federal)	200,000
Feasibility Phase (Federal)	6,900,000
Feasibility Phase (Non-Federal)	6,900,000

The reconnaissance phase was completed in February 2005. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Sacramento-San Joaquin Delta, Delta Islands & Levees, CA Sacramento District	6,153,000	1,167,000	859,000	628,000 1/	394,000	468,000	TBD

1/ Reflects $150,000 reprogrammed to the study.

The study area is located in parts of Alameda, Contra Costa, Sacramento, San Joaquin, and Yolo Counties, California and extends from Sacramento south to the city of Stockton and west to Suisun Bay. The Sacramento-San Joaquin Delta consists of about 740,000 acres of land segregated into some 80 tracts and islands and 1,100 miles of levees. Delta levees protect 500,000 inhabitants and the water supply to 24,000,000 Californians. This study will incorporate elements of the State's Delta Risk Management Strategy (DRMS), while reevaluating some of the results, to develop a combined ecosystem restoration and flood risk management plan for Corps involvement in the future Delta vision. This feasibility study is closely associated with the Levee System Integrity and Environmental Restoration Programs. USACE is the Federal lead. The State's DRMS is a technical study that will evaluate risk to the Delta levees, identify impacts, and develop potential projects and priorities. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement was signed in May 2006.

Fiscal Year 2010 funds are being used to continue the feasibility study, including CEQA/NEPA public scoping meetings. Funds requested for Fiscal Year 2011 will be used to develop the Preliminary Draft Feasibility Study, Preliminary Draft Environmental Impact Statement, and for technical investigations such as bathymetric data for a large portion of the Delta, the development of hydrology and hydraulics modeling to evaluate alternative solutions, a report that details the economic relationship of the Delta and the benefits to the nation, and the initial development of existing, future, and without project conditions.. The estimated cost of the feasibility phase is $12,000,000, which is to be shared on a 50-50 basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$12,153,000
Reconnaissance Phase (Federal)	153,000
Feasibility Phase (Federal)	6,000,000
Feasibility Phase (Non-Federal)	6,000,000

The reconnaissance phase was completed in May 2006. The feasibility study completion is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Solana Encinitas Beaches, CA Los Angeles District	3,462,000	2,419,000	168,000	263,000	305,000	307,000	0

The study area is located on the Southern California Coast, about 15 miles north of San Diego Harbor. The protective beaches have been severely eroded, exposing backshore development, to wave attack, shoreline erosion and undermining. In addition, lagoons and embankments located along the coast are being plugged by littoral transport reducing tidal exchange and degrading ecological systems. The study will investigate shoreline erosion along the 8-mile stretch of beach from the mouth of the Batiquitos Lagoon to the southern boundary of Solana Beach. Under conditions, severe land loss would occur, public safety and infrastructure would be threatened and significant emergency protection costs would accrue. The reduced beach results in severely degraded recreational opportunities along the shoreline. The erosion causes undercutting of coastal bluffs, which will collapse with time and create a serious public hazard, as there are structures located on the bluff top. There is also public and agency concern of migrating sand covering reef habitat. The City of Solana Beach and City of Encinitas, the local sponsors signed the Feasibility Cost Sharing Agreement in July 2001. The study was referred to as Solana Encinitas Beaches; however the authorized name is Encinitas-Solana Beach Shoreline. Future budget justification materials will reflect the aforementioned name.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2011 will be used to complete the feasibility phase. The estimated cost of the feasibility phase is $6,633,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,731,000
Reconnaissance Phase (Federal)	98,000
Feasibility Phase (Federal)	3,364,000 1/
Feasibility Phase (Non-Federal)	3,269,000

The reconnaissance phase was completed in July 2001. The feasibility study is scheduled for completion in September 2011.

1/ Includes $95K for Internal Technical Review not cost-shared.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Sutter Basin, CA Sacramento District	4,158,000	1,914,000	272,000	669,000	628,000	339,000	TBD

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter and Butte Counties, California and includes the Sacramento, Feather and Bear Rivers, and the Sutter Bypass. Results from levee evaluation studies on the Sacramento Urban Area, Marysville/Yuba City, Mid-Valley, Lower and Upper Sacramento Area levee reconstruction projects indicate that structural problems caused by on-going seepage exist. The Corps is addressing levee reconstruction under these projects. The Sutter County reconnaissance study addressed levee improvements beyond reconstruction in these areas and investigated new areas for flood prevention. January 1997 floods caused seepage and boils resulting in levee breaks – levees were stabilized by constructing stability berms and placement of relief wells under emergency construction authority. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 2000. The State of California Reclamation Board was reformed by the State Legislature as the Central Valley Flood Protection Board in October 2007. A new Sutter-Butte Flood Control Agency was formed by county and municipal governments and special districts in December 2007. As a result, the Project Management Plan was further modified to clearly include the southern Butte County portion of the Sutter Basin within the scope of the feasibility study including economic analysis for the Butte County portion of the basin. The study scope will refocus on providing flood damage reduction to the urban areas of Yuba City, Live Oak, Gridley and Biggs in the Sutter Bypass – Feather River sub-basin and developing a flood warning system for the outlying areas of the sub-basin. Other study objectives will include ecosystem restoration and recreation.

Fiscal Year 2010 funds are being used to complete the amendment to the existing Feasibility Cost Sharing Agreement with the State of California and Sutter-Butte Flood Control Agency as joint sponsors, continue the hydrology and hydraulic floodplain analysis, economic analysis, geotechnical analysis of existing levees and continue plan formulation and environmental planning. Funds requested for Fiscal Year 2011will be used to continue with plan formulation and work toward selecting the National Economic Development plan. The estimated cost of the feasibility phase is $8,200,000. The feasibility phase is to be cost-shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,258,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	4,100,000
Feasibility Phase (Non-Federal)	4,100,000

The reconnaissance phase was completed in March 2000. The feasibility study completion date is being determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Flood and Coastal Storm Damage Reduction)							
Upper Penitencia Creek, CA San Francisco District	3,928,000	3,008,000	229,000	191,000	323,000	177,000	0

The study area, extending along 3.6 miles of Upper Penitencia Creek, is located in the northwest portion of Santa Clara County, California in the city of San Jose and flows into Coyote Creek and the southern end of San Francisco Bay. Over the past 20 years, Upper Penitencia Creek has experienced severe flooding that has resulted in damages to residential, commercial and industrial properties, as well as erosion of the creeks levees. Major flood events occurred in the following storm years 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1% flood plain contains approximately 1,600 properties. It is estimated that a 1% flood event would cause $455 million in property damages. A study was initiated by the Soil Conservation Service, which developed feasibility level plans for flood damage reduction, but the amount of agricultural benefits identified in the analysis was insufficient to permit Soil Conservation Service participation. The U.S. Army Corps of Engineers was requested by the local sponsor, Santa Clara Valley Water District, to continue the study effort under Section 4 of the 1941 Flood Control Act. The improvements proposed by the Soil Conservation Service included flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a flood protection from a 1% flood event. The reconnaissance study reviewed earlier efforts and identified the remaining tasks to be performed during the feasibility and design phases. The Santa Clara Valley Water District, signed the Feasibility Cost Sharing Agreement in February 1998.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study to include preparation of the Alternative Formulation Briefing and sections of the draft Engineering Report. The funds requested for Fiscal Year 2011 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $7,166,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$7,511,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	3,583,000
Feasibility Phase (Non-Federal)	3,583,000

The reconnaissance phase was completed in February 1998. The feasibility study is scheduled for completion in September 2011.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Local Protection, Flood Control

PROJECT: American River Watershed, California (Continuing)

LOCATION: The project is located in Placer, El Dorado and Sacramento Counties. It is comprised of three principal streams, the North, Middle and South Forks of the American River, which flow westward into Folsom Lake, through the city of Sacramento and into the Sacramento River. It also includes the Folsom Dam and Reservoir, located on the American River, about 29 miles upstream of the city of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento. Runoff from this basin flows through Folsom Reservoir and passes through Sacramento to the confluence with the Sacramento River.

DESCRIPTION: Evaluations indicated that the level of flood protection along much of the American River is less than 100-year level. Several flood control projects have been authorized for construction for the American River to reduce the risk of flooding to Sacramento. American River Watershed Common Features consists of modifications to the lower American River levees and Sacramento River east levee in the Natomas Basin; modification of the Natomas Cross Canal levees; telemetered gages above Folsom Dam; and improving the flood warning system for the lower American River. Currently, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations, however the existing outlets limit releases to 36,000 cfs until approximately one half of the reservoir's flood control space is filled. Additional work is scheduled for Folsom Dam and related facilities to increase flood protection. Authorized work for Folsom Dam Modifications (aka Joint Federal Project - JFP), which will allow releases much earlier, consists of construction of a new auxiliary spillway and modifying the flood control storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet. The authorized project to raise Folsom Dam 3.5 feet includes raising related dikes and auxiliary dam, construction of a permanent bridge downstream of Folsom Dam, and ecosystem restoration projects. The Joint Federal Project is a joint effort between the US Bureau of Reclamation and the US Army Corps of Engineers (USACE). The basic concept is that Reclamation will complete 20% of the work under their Dam Safety program with the USACE completing the remaining 80%. Details of the plan are described in the Post Authorization Change (PAC) Report – American River Watershed Project, Folsom Dam Modification and Folsom Dam Raise Projects.

AUTHORIZATION: (Common Features) Water Resources Development Act of 1996, Sec. 101(a)(1); Water Resources Development Act of 1999, Sec. 366; Energy and Water Development Appropriations Act, 2004; Energy and Water Development Appropriations Act 2008 (Sec 130); (Folsom Dam Modifications) Water Resources Development Act of 1999, Sec. 101(a)(6); Water Resources Development Act of 2007, Sec. 3029 (b)(1); (Folsom Dam Raise & Bridge) Defense Appropriations Act for FY 1993; Water Resources Development Act of 1999, Sec. 566; Energy and Water Development Appropriations Acts of 2004 and 2006, Sec. 134; Energy and Water Development Appropriations Act 2009 (Sec 109) (permanent bridge).

REMAINING BENEFIT-REMAINING COST RATIO: (See Basis of Benefit-Cost Ratio).

TOTAL BENEFIT-COST RATIO: (See Basis of Benefit-Cost Ratio).
INITIAL BENEFIT-COST RATIO: (See Basis of Benefit-Cost Ratio).
BASIS OF BENEFIT-COST RATIO:

RISK INDEX: Common Features 1,500; Folsom Dam Modifications 833; Folsom Dam Raise 250
BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

BASIS OF BENEFIT-COST RATIO (Continued)

Common Features – Initial benefits are from the Supplemental Information Report (SIR) approved June 1996 at 1995 price levels for work authorized in the Water Resources Development Act of 1996 (WRDA 96). Benefits and costs are originally from the Second Addendum to the SIR approved October 2002 at October 2001 price levels. Benefits were updated to current price levels in the Engineering Documentation Report, June 2006; the benefit to cost ratio is 2.1 to 1. An economic update will be included in the General Re-evaluation Report incorporating additional scope for the Natomas component of Common Features.
Folsom Dam Modifications – Benefits and costs were updated in the Post Authorization Change Report (PAC) dated March 2007 and finalized in the Economic Reevaluation Report (ERR) dated February 2008. The benefit to cost ratio is 2.3 to 1.
Folsom Dam Raise – Benefits and costs were updated in the Post Authorization Change Report (PAC) dated March 2007 and finalized in the Economic Reevaluation Report (ERR) dated February 2008. The benefit to cost ratio is 3.5 to 1, but Folsom Dam Modifications has to be completed to receive full benefits.
Remaining Benefit-Remaining Cost ratios for all projects are currently being reevaluated.

SUMMARIZED FINANCIAL DATA	(1		STATUS JAN 2010)	PCT CMPL	PHYSICAL COMPLETION SCHE DULE
Common Features					
Estimated Federal Cost		$213,100,000	WRDA 96 Features	90	2013
Estimated Non-Federal Cost		68,900,000	WRDA 99 Features	40	2013
Cash Contribution	$54,509,000		Entire Project	80	2013
Other Costs	14,391,000				
Total Common Features		$282,000,000			
Folsom Dam Modifications					
Estimated Federal Cost		$543,900,000	Entire Project	10	2015
Estimated Non-Federal Cost		292,900,000			
Cash Contribution	$292,900,000				
Other Costs	0				
Total Folsom Dam Modifications		$836,800,000			
Folsom Dam Raise					
Estimated Federal Costs		$133,530,000	Entire Project	0[1/]	2016
Estimated Non-Federal Costs		71,330,000			
Cash Contribution	$70,115,000				
Other Costs	1,215,000				
Total Folsom Dam Raise		$204,860,000			

STATUS PCT PHYSICAL COMPLETION

SUMMARIZED FINANCIAL DATA (Continued) (1 JAN 2010) CMPL SCHE DULE

Folsom Bridge					
Estimated Federal Costs		$ 86,810,000 [2]	Entire Project	95	2016
Estimated Non-Federal Costs		52,712,000			
Cash Contribution	$38,486,000				
Other Costs	14,226,000				
Total Folsom Bridge		$139,522,000			

1/ Reflects physical completion for Folsom Dam Raise portion only.

2/ Includes $48,300,000 for permanent bridge not subject to cost sharing requirements with non-Federal interests.

Project Summary		
Estimated Federal Costs		$ 977,340,000
Estimated Non-Federal Costs		485,842,000
Cash Contribution	$456,010,000	
Other Costs	29,832,000	
Total Estimated Project Costs		$1,463,182,000

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2007	$256,855,000	
Allocations for FY 2008	32,357,000	
Allocations for FY 2009	41,700,000 [3]	
Conference Allowance for FY 2010	69,913,000	
Allocation for FY 2010	70,213,000 [4]	
Allocations through FY 2010	401,125,000	41
Allocation Requested for FY 2011	82,700,000	49
Programmed Balance to Complete after FY 2011	$493,515,000	
Unprogrammed Balance to Complete after FY 2011	0	

3/ Includes FY 2009 American Recovery and Reinvestment Act (ARRA) funding of $13,700,000 for Common Features and $3,000,000 for the Dam Raise (Folsom Bridge).

4/ Includes FY 2010 ARRA funding of $300,000.

SUMMARIZED FINANCIAL DATA (Continued)

PHYSICAL DATA

1. COMMON FEATURES -
Streamflow Gages – Install 3 new telemetered gages upstream of Folsom Lake (WRDA 96)
Flood Warning System – Install on lower American River (WRDA 96)
Closure Structure – Install at Mayhew Drain (WRDA 99)
Levees:
- Construct slurry and jet grout cutoff wall on 19.7 miles of lower American River levees (WRDA 96)

PHYSICAL DATA

Division: South Pacific District: Sacramento American River Watershed, California

1. COMMON FEATURES (Continued) -
   - Modify 4.4 miles of American River levees (WRDA 99)
   - Modify 12.1 miles of Sacramento River levees (WRDA 96)
   - Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

2. Authorized FOLSOM DAM MODIFICATIONS –
Construct auxiliary spillway

3. Authorized FOLSOM DAM RAISE -
Raise Folsom Dam, wing walls & dikes
Construct Bridge
Accomplish ecosystem restoration

JUSTIFICATION: This flood and storm damage reduction project warrants a high funding priority because it addresses significant risk to human safety in accordance with the U.S. Army Corps of Engineers performance-based guidelines for the construction account. Folsom Dam and Reservoir are key features in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Significant rainfall in recent years has filled Folsom Lake and necessitated record releases in excess of design flow downstream. The levees along the American River are designed to accommodate releases from Folsom Dam of up to 115,000 cfs. Downstream levees would likely fail with sustained flows above this level. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 330,000 residents, with damages of up to $58 billion, depending on the magnitude of the event. The Common Features project, consisting of levee improvements along the American and Sacramento River and Natomas Cross Canal, installation of new and telemetering existing streamflow gages and implementing a new flood warning system on the lower American River as authorized in WRDA 96 and WRDA 99 would decrease the probability of flood damage to about a 1 in 100 chance in any one year. Average annual benefits for the Common Features portion amount to $42,300,000, all flood control, escalated to October 2007 price levels. The authorized Folsom Dam Modifications project would construct an auxiliary spillway. This would further reduce the risk of flood damage to a 1 in 140 chance in any one year. Average annual benefits amount to $143,000,000, all flood control, at October 2007 price levels. The Folsom Dam Raise Project would further reduce the risk of flood damage to a 1 in 213 chance in any one year. Average annual benefits amount to $19,200,000, all flood control, at October 2007 price levels.

FISCAL YEAR 2010: The current amount is being applied as follows:

Folsom Dam Modifications

Division: South Pacific District: Sacramento American River Watershed, California

Complete detailed design of control structure	$ 3,000,000
Initiate construction of control structure	58,016,000
Initiate design of chute and stilling basin	2,000,000
Total Folsom Dam Modifications	$63,016,000
Common Features	
Natomas Post-Authorization Change and Common Features GRR	$5,000,000
Planning, Engineering, and Design	650,000
Construction Management	680,000
Total Common Features	$6,330,000
Folsom Dam Raise	
Continue design on project features	$567,000
Grand Total, American River Watershed	$69,913,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Folsom Dam Modifications	
Continue construction of control structure for auxiliary spillway $67,30	0,000
Planning, Engineering, and Design on project features	6,000,000
Construction Management	4,700,000
Total Folsom Dam Modifications	$78,000,000
Common Features	
Initiate and complete WRDA 1996 construction – 6 Sites	$ 3,200,000
Construction Management	1,000,000
Total Common Features	$ 4,200,000

FISCAL YEAR 2011 (Continued):

Folsom Dam Raise

Planning, Engineering, and Design on project features	$ 500,000
Grand Total, American River Watershed	$82,700,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Common Features		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$14,391,000	$
Pay 20 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1996, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	54,509,000	54,000
Total Common Features Non-Federal Costs	$68,900,000	$54,000
Folsom Dam Modifications		
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$292,900,000	$800,000 [5/]

NON-FEDERAL COSTS (Continued)

Annual

Division: South Pacific District: Sacramento American River Watershed, California

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Total Folsom Dam Modifications Non-Federal Costs	$292,900,000	$800,000 [5/]

5/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement has been negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features. Subsequent agreements are to be negotiated as project information is further defined.

Folsom Dam Raise – Raise Component Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 1,215,000	
Pay 35 percent of the costs allocated to flood control to bring non-Federal share to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	42,697,000	[6/]
Pay 33 percent of the costs allocated to ecosystem restoration to bring non-Federal share to 35 percent.	27,418,000	
Total Folsom Dam Raise Component	$71,330,000	

6/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. An initial cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features. Amount is for both Folsom Dam Modifications and Folsom Dam Raise (Joint Federal Project).

NON-FEDERAL COSTS (Continued)

Operation,

Division: South Pacific District: Sacramento American River Watershed, California

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Maintenance, Repair, Rehabilitation, and Replacement Costs
Folsom Dam Raise – Bridge Component		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas (City of Folsom).	$9,589,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project (City of Folsom).	4,637,000	
City of Folsom's share of costs associated with bridge construction.	28,000,000	
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	10,486,000	
Total Folsom Bridge Component	$52,712,000	
Total Folsom Dam Raise (including Bridge) Non-Federal Costs	$124,042,000	
Total American River Watershed Non-Federal Costs	$485,842,000	$854,000

STATUS OF LOCAL COOPERATION: The Central Valley Flood Protection Board is the non-Federal sponsor for the Common Features Project. The Project Cooperation Agreement (PCA) for the Common Features was executed in July 1998 for implementation of features authorized by WRDA 1996. Amendment 1 to the PCA was executed in June 2003 and increased the project cost and extended the completion date due to addition of WRDA 1999 levee work. Amendment 2 was executed in September 2006 and increased the total project cost and project completion date in accordance with EWDA of 2004. Amendment 3 was executed in July 2006 and authorized the non-Federal sponsor to accelerate the cash contribution. Amendment 4 was executed in July 2007 and amended the project scope in accordance with WRDA 1999 to add Mayhew, Howe Avenue, Jacob Lane and Natomas East Main Drainage Canal levees to the project scope. The total project cost was increased.

STATUS OF LOCAL COOPERATION (Continued)

The Central Valley Flood Protection Board and the Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors for the Folsom Dam Modifications. The PCA for the Folsom Dam Modifications was executed on 30 March 2004 and amended 24 August 2009 to incorporate Section 3029 of WRDA 2007. A second amendment to the Folsom Dam Modifications PCA addressing the allocation of sponsor credits is scheduled for execution May 2010.

The Central Valley Flood Protection Board and SAFCA are the non-Federal sponsors for the Folsom Dam Raise. The PCA for the Dam Raise is scheduled for execution in FY 2013. The non-Federal sponsors are financially capable and willing to contribute the non-Federal share. The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

The City of Folsom is the non-Federal sponsor for the Folsom Dam Bridge Project. PCA was executed 22 November 2006.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $977,340,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Common Features - A Supplemental Environmental Impact Statement/Environmental Impact Report (SEIS/EIR) was filed with the Environmental Protection Agency on 8 March 1996. Folsom Dam Modifications/Folsom Dam Raise (Joint Federal Project) – The Bureau of Reclamation (Bureau), with cooperation from the Corps, prepared an EIS/EIR, which was finalized in March 2007. The Bureau and the Corps signed a joint Record of Decision (ROD) on 3 May 2007.

OTHER INFORMATION: The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report (SIR) was completed in March 1996. The SIR identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

WRDA 1996 authorized construction of the Common Features. Funds were appropriated in Fiscal Year 1998 to initiate construction. Additional flood control improvements along the lower American River and Natomas Cross Canal were authorized by Section 366 of WRDA 1999 as part of the overall project. The cost of slurry wall construction authorized by WRDA 1996 has increased significantly due to increased slurry wall quantities, the technical requirement for the more costly jet grout construction method for slurry wall construction around bridges and deep utilities, and several high-cost contract modifications due to slurry leaks during construction. The cost of planning, engineering and design has also increased. Project reauthorization was required to increase the project cost estimate to complete most of the remaining WRDA 1996 and WRDA 1999 features. The Second Addendum to the SIR, dated March 2002 and revised July 2002, serves as the decision document/post-authorization change (PAC) report. Based on this report, Section 129 of the Energy and Water Development Appropriations Act, 2004 increased the authorized first cost to $205 million. For implementation of the Natomas Basin features a separate Post Authorization Change decision document is being prepared under the Common Features project to address the previously unknown levee under-seepage problem along the Sacramento River and the associated increased cost. A General Re-evaluation Report is being prepared that will likely result in additional construction features requiring new authorization.

OTHER INFORMATION (Continued)

Common Features – Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996. Construction of the first contract on the lower American River levees was initiated in July 1998. WRDA 1996 Phase 1 remaining sites construction started in summer 2009 and will be completed in 2010; Phase 2 remaining sites construction will be initiated in summer 2010. Fish and wildlife mitigation costs are currently estimated at $3,773,000.

Folsom Dam Modifications – Funds used to initiate preconstruction engineering and design on the Folsom Modifications were allocated in FY 2000. Funds to initiate construction were appropriated in FY 2001. SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Modification Plan described in the 1996 SIR. The 1996 SIR as modified by SAFCA Outlet Report was the basis for the project authorized under the Water Resources Development Act of 1999. The LRR, dated November 2003, documents the 1996 SIR plan as modified by the SAFCA Outlet Report. Information in FY 2007 budget submittal indicated that the project, as originally designed, would exceed the maximum authorized cost per Section 902 of WRDA 1986. Action was taken to conduct engineering evaluations and to develop a Post Authorization Change and Engineering Documentation Report (PAC/EDR) document recommending a functionally equivalent performance project that involves a new gated auxiliary spillway on the left embankment of Folsom Dam. USACE PAC Report and U.S. Bureau of Reclamation Mod Report recommended a Joint Federal Project, which addresses both the Dam Safety and the Flood Risk Management issues. During PAC and Mod approval process, both ASA(CW) and ASI(WS) made strong commitments to each other to make the JFP a top priority and expeditiously design and construct the project, because of the significant property and loss of life risks and the efficiencies of both agencies working together. Further, both agencies recognized that neither agency could or should move forward without a strong commitment to build the project together. Both the PAC and Mod Reports were approved by OMB September 2007. WRDA 2007 authorized construction in accordance with the PAC at a total cost of $683,000,000 (USACE portion) and congress encouraged USACE and USBR to move forward expeditiously. Average annual costs and flood damage reduction benefits in the PAC report are $37.9 million and $89.9 million, respectively. Total damageable property is estimated at $58B due to flooding in the Sacramento area. Engineering and design effort on the Folsom Dam Modifications portion of the Joint Federal Project will continue through FY 2012. US Bureau of Reclamation started construction of the JFP on 11 January 2008 and will complete their portion of the project September 2010.

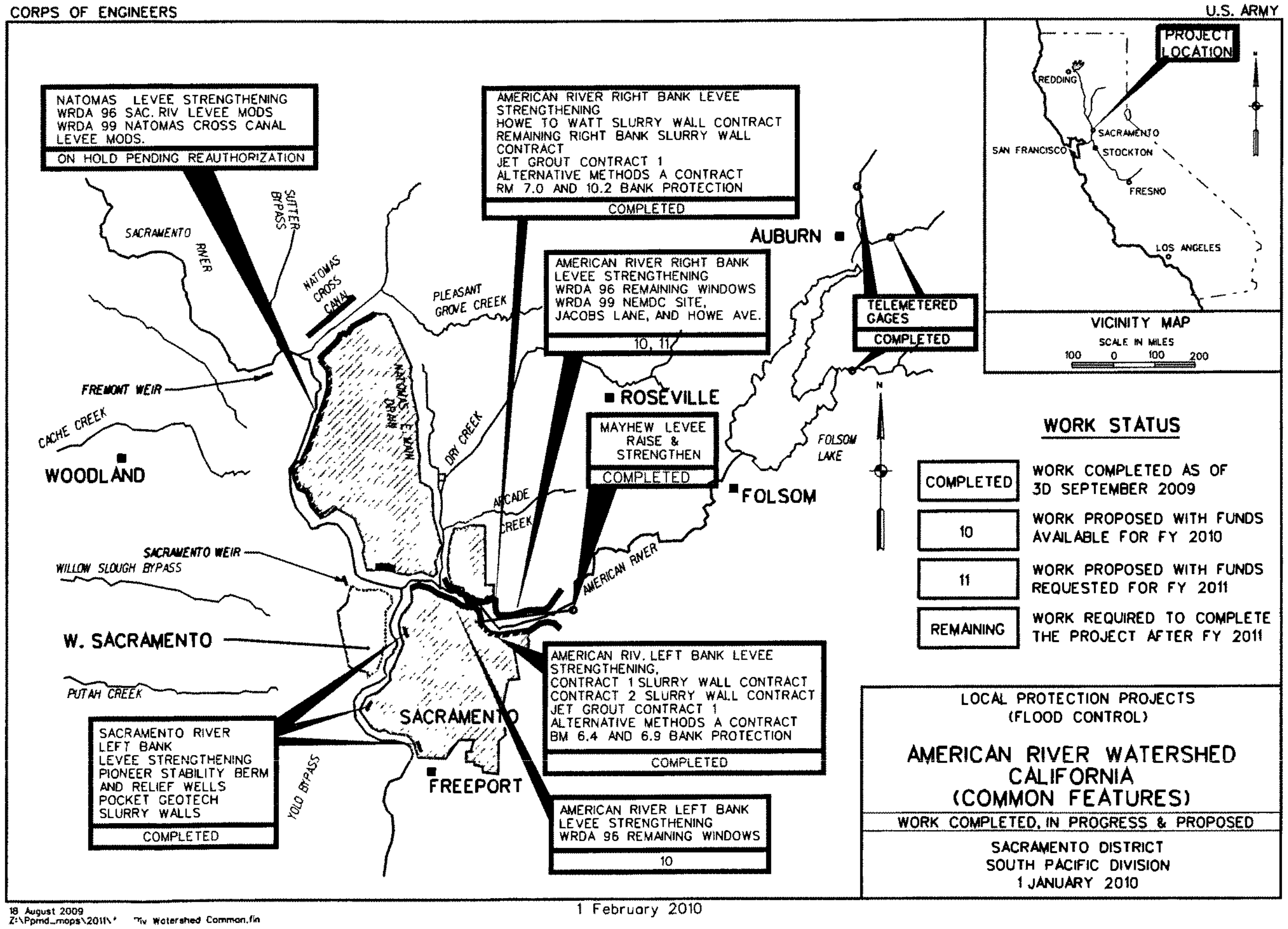
DAM SAFETY ISSUE: This construction satisfies the Bureau of Reclamation's significant dam safety issues at Folsom Dam. This is the USBR's top Dam Safety issue in the Nation. Without the JFP, the USBR has determined a probable maximum flood would cause catastrophic failure of the Folsom Dam and many lives would be lost. Emergency response and regional/national economic disruption costs associated with flooding in Sacramento are enormous. There is limited egress and ingress across Sacramento and American rivers and there would be a disruption of statewide drinking water supplies.

Fish and wildlife mitigation costs are currently not expected to be significant.

Folsom Dam Raise – The Long Term Study (Feasibility Report) for the entire American River Watershed was completed in February 2002. The Chief's Report, dated 5 November 2002, was followed by the Division Engineer's Public Notice issued on 22 March 2003. Funds to initiate construction were appropriated in FY 2004. The PAC Report recommended the Raise design be refined from 7-foot raise to a 3.5-foot raise. Fish and wildlife mitigation costs are currently not expected to be significant.

OTHER INFORMATION (Continued)

Folsom Bridge – Total project cost (including only the temporary bridge component) was authorized at $257,300,000 in P.L. 108-137, Section 128 for both Folsom Dam Raise and Folsom Bridge. Section 128 also modified the cost sharing of the permanent bridge feature and required status reports to Congress. Sec. 128(b) of P.L. 109-103 amended Sec. 134 of P.L. 108-137 by authorizing "to be appropriated to the Secretary of the Army $30,000,000 for the construction of the permanent bridge described in section 128(a) of P.L. 109-103, above the $36,000,000 provided for in the recommended plan for bridge construction. The $30,000,000 shall not be subject to cost sharing requirements with non-Federal interests." Sec. 109 of P.L. 111-8 further amended Sec. 134 of P.L. 108-137, as amended by section 128(b) of P.L. 109-103, "by striking "$30,000,000" wherever it appears and inserting "$48,300,000" in lieu thereof."


CORPS OF ENGINEERS
U.S. ARMY
NATOMAS LEVEE STRENGTHENING
WRDA 96 SAC. RIV LEVEE MODS
WRDA 99 NATOMAS CROSS CANAL LEVEE MODS.
ON HOLD PENDING REAUTHORIZATION
AMERICAN RIVER RIGHT BANK LEVEE STRENGTHENING
HOWE TO WATT SLURRY WALL CONTRACT
REMAINING RIGHT BANK SLURRY WALL CONTRACT
JET GROUT CONTRACT 1
ALTERNATIVE METHODS A CONTRACT
RM 7.0 AND 10.2 BANK PROTECTION
COMPLETED
AMERICAN RIVER RIGHT BANK LEVEE STRENGTHENING
WRDA 96 REMAINING WINDOWS
WRDA 99 NEMDC SITE,
JACOBS LANE, AND HOWE AVE.
10, 11
MAYHEW LEVEE RAISE & STRENGTHEN
COMPLETED
TELEMETERED GAGES
COMPLETED
AUBURN
ROSEVILLE
FOLSOM
FOLSOM LAKE
AMERICAN RIVER
ARCADE CREEK
DRY CREEK
PLEASANT GROVE CREEK
NATOMAS E. MAIN DRAIN
NATOMAS CROSS CANAL
SUTTER BYPASS
SACRAMENTO RIVER
FREMONT WEIR
CACHE CREEK
WOODLAND
SACRAMENTO WEIR
WILLOW SLOUGH BYPASS
W. SACRAMENTO
PUTAH CREEK
YOLO BYPASS
SACRAMENTO
FREEPORT
SACRAMENTO RIVER
LEFT BANK
LEVEE STRENGTHENING
PIONEER STABILITY BERM
AND RELIEF WELLS
POCKET GEOTECH
SLURRY WALLS
COMPLETED
AMERICAN RIV. LEFT BANK LEVEE STRENGTHENING,
CONTRACT 1 SLURRY WALL CONTRACT
CONTRACT 2 SLURRY WALL CONTRACT
JET GROUT CONTRACT 1
ALTERNATIVE METHODS A CONTRACT
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WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
AMERICAN RIVER WATERSHED
CALIFORNIA
(COMMON FEATURES)
WORK COMPLETED, IN PROGRESS & PROPOSED
SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010
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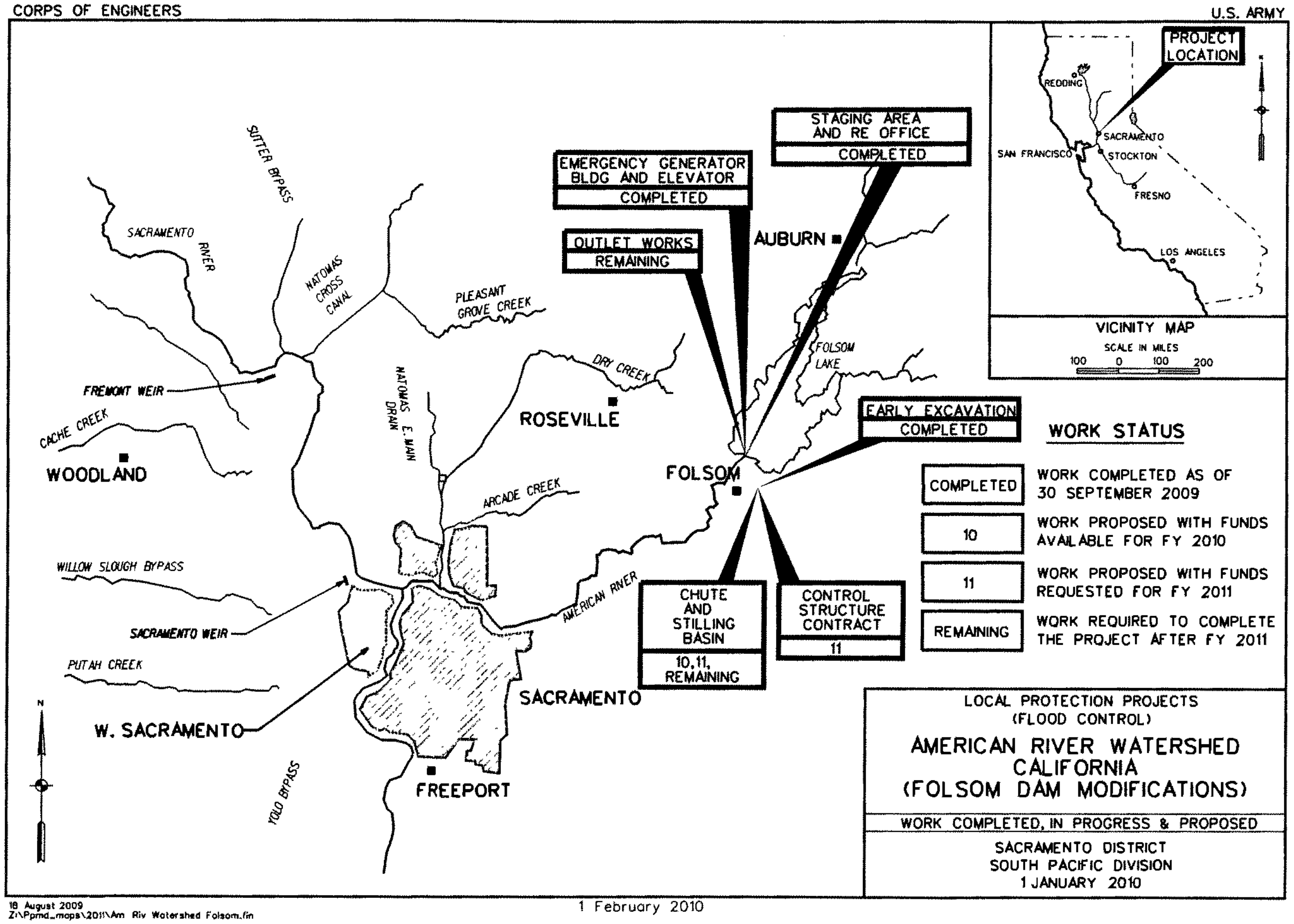
CORPS OF ENGINEERS
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OUTLET WORKS
REMAINING
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FOLSOM LAKE
EARLY EXCAVATION
COMPLETED
WORK STATUS
COMPLETED
WORK COMPLETED AS OF 30 SEPTEMBER 2009
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WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
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WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
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NATOMAS CROSS CANAL
PLEASANT GROVE CREEK
NATOMAS E. MAIN DRAIN
DRY CREEK
ROSEVILLE
FOLSOM
FREMONT WEIR
CACHE CREEK
WOODLAND
ARCADE CREEK
WILLOW SLOUGH BYPASS
AMERICAN RIVER
CHUTE AND STILLING BASIN
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CONTROL STRUCTURE CONTRACT
11
SACRAMENTO WEIR
PUTAH CREEK
SACRAMENTO
W. SACRAMENTO
FREEPORT
YOLO BYPASS
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LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
AMERICAN RIVER WATERSHED
CALIFORNIA
(FOLSOM DAM MODIFICATIONS)
WORK COMPLETED, IN PROGRESS & PROPOSED
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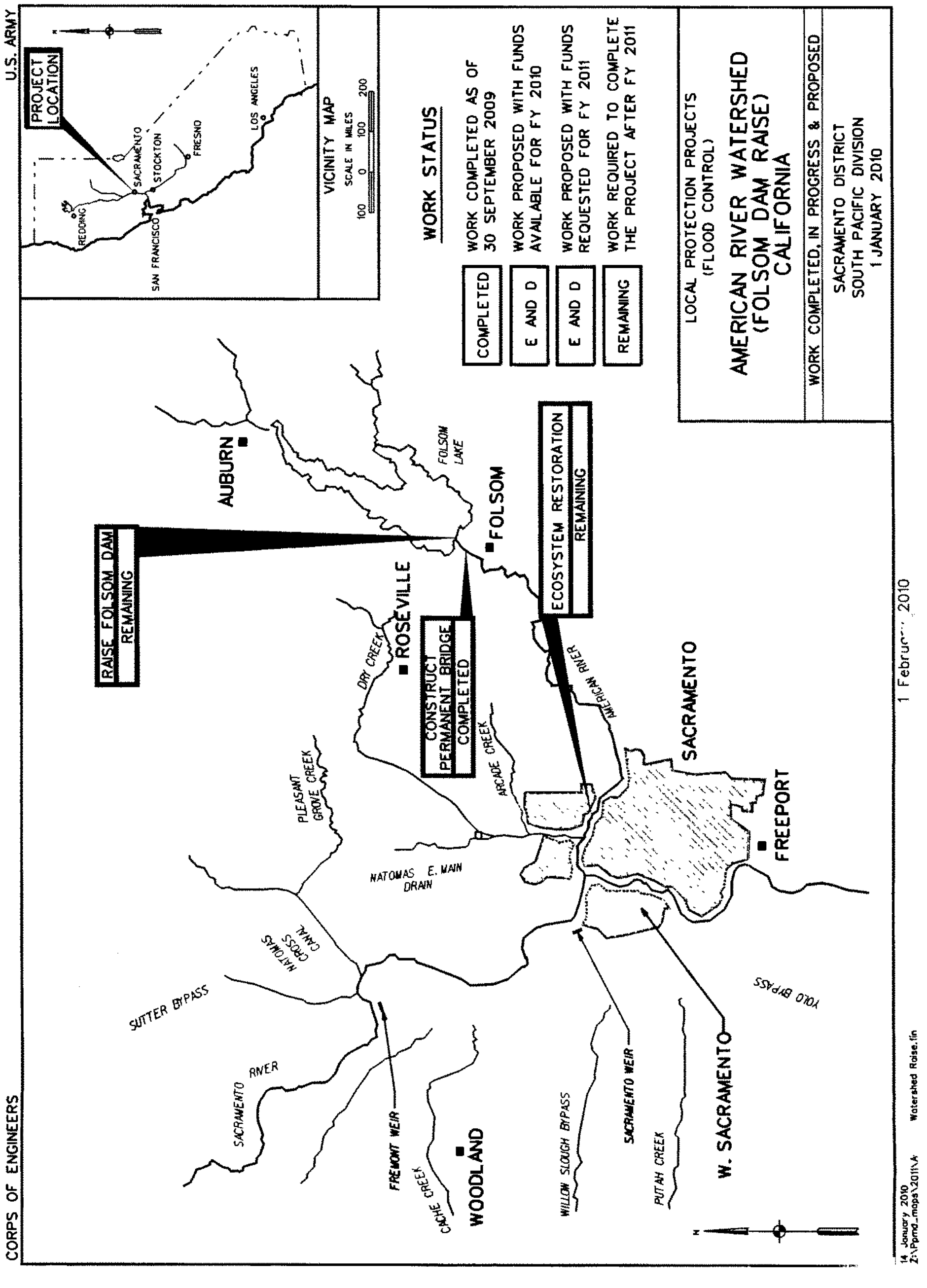
CORPS OF ENGINEERS
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E AND D — WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING — WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
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(FLOOD CONTROL)
AMERICAN RIVER WATERSHED
(FOLSOM DAM RAISE)
CALIFORNIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010
AUBURN
FOLSOM LAKE
FOLSOM
RAISE FOLSOM DAM
REMAINING
ECOSYSTEM RESTORATION
REMAINING
ROSEVILLE
CONSTRUCT PERMANENT BRIDGE
COMPLETED
DRY CREEK
AMERICAN RIVER
SACRAMENTO
PLEASANT GROVE CREEK
ARCADE CREEK
FREEPORT
NATOMAS E. MAIN DRAIN
NATOMAS CROSS CANAL
SUTTER BYPASS
SACRAMENTO RIVER
YOLO BYPASS
FREMONT WEIR
WOODLAND
CACHE CREEK
WILLOW SLOUGH BYPASS
SACRAMENTO WEIR
PUTAH CREEK
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APPROPRIATION TITLE: Construction – Flood Risk Management

PROJECT: Rio Grande Floodway, San Acacia to Bosque del Apache Unit, New Mexico (Continuing)

LOCATION: The project is located in Socorro County, New Mexico along the Rio Grande, and extends from the upper end of the Rio Grande low-flow conveyance channel at the San Acacia diversion works to Tiffany Junction, approximately 11 miles upstream of Elephant Butte Reservoir.

DESCRIPTION: The plan of improvement consists of the reconstruction of approximately 44 miles of existing spoil banks which separates the Rio Grande low flow conveyance channel from the river. The level of protection is a discharge of approximately 20,000 cfs at Socorro, New Mexico, corresponding to approximately the 100 year flood.

AUTHORIZATION: Flood Control Act of 1948, Section 203 and Water Resources Development Act of 1992, Section 102(12)(s).

REMAINING BENEFIT - REMAINING COST RATIO: 4.2 to 1 at 7 percent.
TOTAL BENEFIT - COST RATIO: 2.4 to 1 at 7 percent.
INITIAL BENEFIT - COST RATIO: 2.9 to 1 at 7 percent (FY 1992).
BASIS OF BENEFIT - COST RATIO: Benefits are from the Appendix to the Project Decision Document dated December 1993 at October 1993 price levels. Updated economic analyses will be determined in the Limited Reevaluation Report, scheduled for completion in FY 2011.

RISK INDEX: 3,200
BASIS OF RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$67,900,000	
Estimated Non-Federal Cost		9,700,000	
Cash Contribution	$8,800,000		
Other Costs	900,000		
Total Estimated Project Cost		$77,600,000	
Allocations to 30 September 2007		$ 8,744,000	
Allocations for FY 2008		749,000	
Allocations for FY 2009		1,316,000 1/	
Allocation for FY 2010		756,000	
Allocations through FY 2010		11,565,000	17

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	0	Sep 2017

PHYSICAL DATA

Levees - 44 Miles

1/ Includes $550,000 in American Recovery and Reinvestment Act allocations to date

Division: South Pacific District: Albuquerque Rio Grande Floodway, San Acacia to Bosque del Apache Unit, NM

SUMMARIZED FINANCIAL DATA (continued)		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2011	$10,000,000	32
Programmed Balance to Complete after FY 2011	46,335,000	

JUSTIFICATION: The project will provide protection from approximately the 100-year flood with an estimated discharge of 20,000 cubic feet per second (cfs). The flood of record, in September 1929, produced a peak discharge of 60,000 cubic feet per second on the Rio Grande at the San Acacia gage. Irrigation and transportation facilities were either disrupted or destroyed. Over 90 percent of the irrigated farmland in a 60 mile reach of the Rio Grande was severely damaged, and the original villages of San Acacia, San Antonio, and San Marcial were destroyed. Damages sustained at that time were $1,500,000; under current conditions and prices the damages would be $288,000,000. The last major flood event occurred in 1965 with minor flooding in 1967, 1979 and 2005. The value of property within the 100-year flood plain is $400,000,000. Residential property within the 100-year flood plain is worth $55,000,000. The Rio Grande low-flow conveyance channel, built by the U.S. Bureau of Reclamation in 1961, is the primary damageable property in the project area. Cost to construct the low flow conveyance channel at October 2009 price levels is $140,000,000. The United States Bureau of Reclamation estimates that following a flood severe enough to breach the spoil-bank levee separating the low-flow conveyance channel from the adjacent floodway, the low-flow conveyance channel would be obliterated and out of service for at least five years. As much as 455,000 acre-feet of water would be lost over such a five-year period, with an economic value of $23,000,000. Loss of the channel would also have international significance, as the 1906 Treaty with Mexico requires the delivery of 60,000 acre-feet of water annually. Single occurrence damages from the one percent chance floods are $277,000,000. Average annual damages without the project are $12,996,400 and with the project are $967,000. Average annual benefits are $12,029,000, all flood risk management, based on October 2009 price levels. The project avoids long and short term impacts associated with the destruction or modification of wetlands; in fact, the project protects existing wetlands at Bosque del Apache National Wildlife Refuge.

FISCAL YEAR 2010: The current amount of $756,000 is being used to continue the Limited Re-evaluation Report (LRR).

FISCAL YEAR 2011: The requested amount will be applied as follows:

Initiate construction contract	$ 8,800,000
Complete Limited Reevaluation Report	200,000
Complete plans and specifications	200,000
Planning, Engineering and Design	200,000
Construction Management	600,000
Total	$ 10,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, and the Water Resources Development Act of 1992, PL 102-580, Section 102(S), the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments Annual During Maintena Construction Reh and Reimbursements Repl	Operation, nce, Repair, abilitation, and acement Costs
Participate in Project Partnership Team, conduct audits of non-Federal costs, and perform investigations of hazardous substances.	$ 100,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	800,000	
Pay 11.3 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 12.5 percent, but no less than 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	8,800,000	$240,000
Total Non-Federal Cost	$ 9,700,000	$240,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

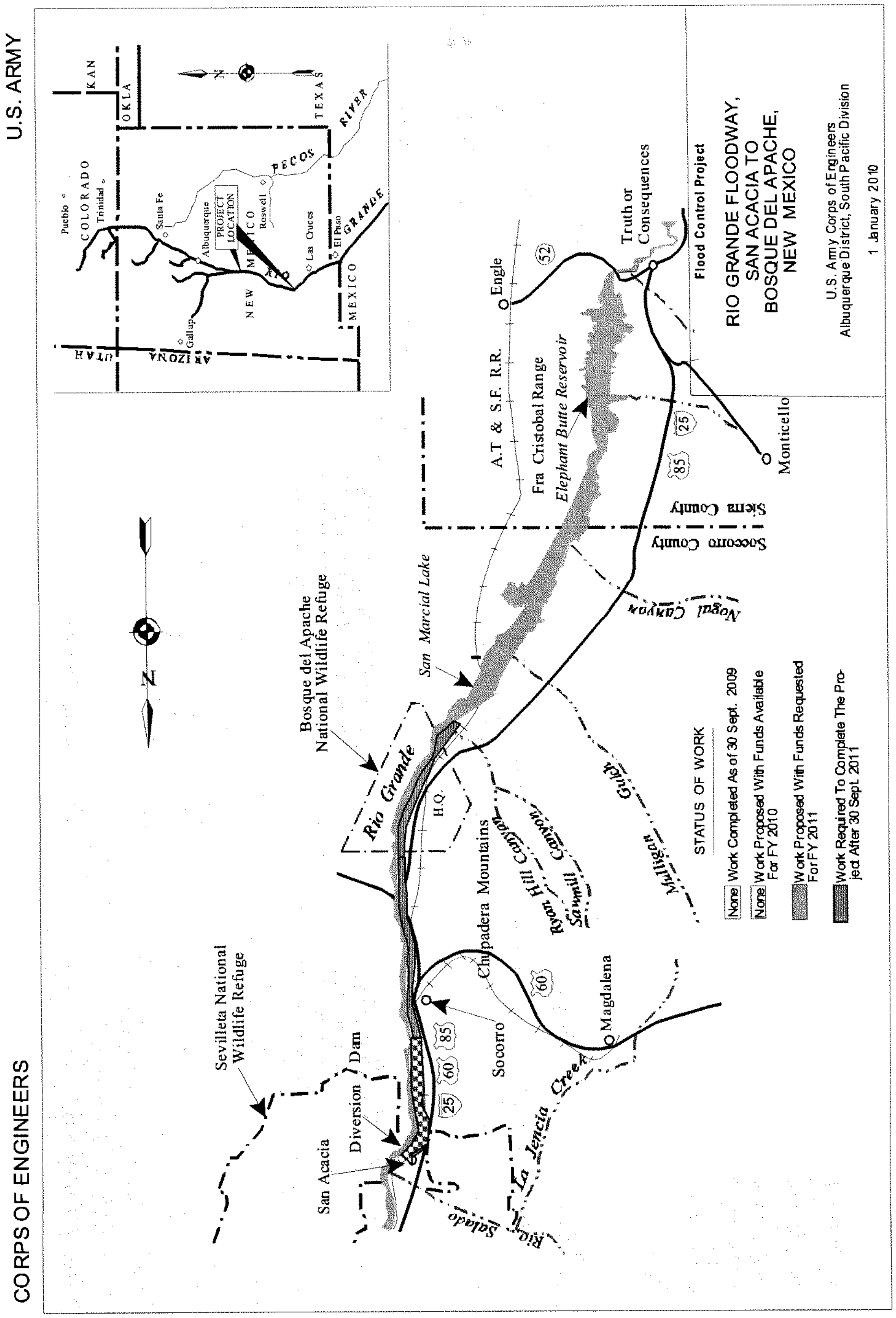
STATUS OF LOCAL COOPERATION: The Middle Rio Grande Conservancy District supports the authorized levee project, as currently modified, to provide needed flood protection to the Middle Rio Grande Valley below San Acacia. By letter dated 28 July 1995, the New Mexico State Engineer indicated that funding for a portion of the non-Federal share of the project may be provided by the New Mexico Interstate Stream Commission from the Improvement of the Rio Grande Income Fund. The Project Partnership Agreement is scheduled for execution in May 2011.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $67,900,000 (1 October 2009) is the same as the latest estimate ($67,900,000) presented to Congress (FY 2009).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed in February 1992. A supplemental Environmental Impact Statement is scheduled to be filed with the Environmental Protection Agency in September 2010.

OTHER INFORMATION: Funds to initiate Preconstruction Engineering and Design were appropriated in Fiscal Year 1987, and funds to initiate construction were appropriated in Fiscal Year 1992. The final Limited Reevaluation Report (LRR) is scheduled for approval in April 2011. The Project Partnership Agreement is scheduled for execution in May 2011. American Recovery and Reinvestment Act funds received in FY 2009 were used to continue geotechnical investigations required for design of the levees.

The San Acacia to Bosque del Apache levee project was authorized by the Flood Control Act of 1948 as a portion of the overall Rio Grande Floodway project. Under this broad authorization, and based on a prioritization of need, the Corps built Albuquerque's levees in the 1950's, focused on construction of four upstream reservoirs in the 1950's, 1960's and 1970's, and other features during the 1980's and 1990's. The Rio Grande Floodway, San Acacia to Bosque del Apache levees were nearing construction in the early 1990's when two key developments occurred delaying completion of the project. The first of these developments was the 1993 Mississippi flooding, which resulted in new guidance requiring the consideration of long-duration flood hydrographs. The second development was the Federal listing of two new endangered species in the Rio Grande Basin; the Rio Grande silvery minnow in 1994, and the southwestern willow flycatcher in 1995. As a result, the project required reevaluation to account for the changed environmental and hydrologic parameters. Additionally, in 1999, the Bureau of Reclamation began reevaluating the future use of the Rio Grande Low Flow Conveyance Channel, which was built as part of their Rio Grande Project to provide irrigation water in the middle Rio Grande valley. The Rio Grande Low Flow Conveyance Channel accounts for approximately one-third of the flood control benefits attributed to the flood control project. In 2002, the Bureau of Reclamation determined that the Low Flow Conveyance Channel would remain in service, allowing the Corps' flood control analysis to proceed.


U.S. ARMY
CORPS OF ENGINEERS
Flood Control Project
RIO GRANDE FLOODWAY, SAN ACACIA TO BOSQUE DEL APACHE, NEW MEXICO
U.S. Army Corps of Engineers
Albuquerque District, South Pacific Division
1 January 2010
STATUS OF WORK
None Work Completed As of 30 Sept. 2009
None Work Proposed With Funds Available For FY 2010
Work Proposed With Funds Requested For FY 2011
Work Required To Complete The Project After 30 Sept. 2011
N
Sevilleta National Wildlife Refuge
San Acacia
Diversion Dam
Socorro
Magdalena
La Jencia Creek
Rio Salado
Chupadera Mountains
Ryan Hill Canyon
Sawmill Canyon
Milligan Gulch
H.Q.
Rio Grande
Bosque del Apache National Wildlife Refuge
San Marcial Lake
Nogal Canyon
Socorro County
Sierra County
A.T & S.F. R.R.
Fra Cristobal Range
Elephant Butte Reservoir
Engle
Truth or Consequences
Monticello
25
60
85
52
COLORADO
KAN
OKLA
TEXAS
UTAH
ARIZONA
NEW MEXICO
MEXICO
Pueblo
Trinidad
Santa Fe
Albuquerque
Gallup
PROJECT LOCATION
Roswell
Las Cruces
El Paso
PECOS RIVER
RIO GRANDE

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: Sacramento River Bank Protection Project, California (Continuing)

LOCATION: The project is located in north-central California, along the Sacramento River and its principal tributaries from Sacramento River RM 0.0 at Collinsville to Chico Landing at RM 194. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento.

DESCRIPTION: The project provides a long-range program of bank protection to protect the levees within the limits of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river.

AUTHORIZATION: Flood Control Act of 1960; River Basin Monetary Authorization Act of 1974; Further Continuing Appropriations Act of 1983; Water Resources Development Act (WRDA) of 1986, Sec. 601 (a) and WRDA of 2007, Sec. 3031.

REMAINING BENEFIT-REMAINING COST RATIO: 10.0 to 1 at 7 percent (See OTHER INFORMATION)

TOTAL BENEFIT-COST RATIO: 12.4 to 1 at 7 percent (See OTHER INFORMATION)

INITIAL BENEFIT-COST RATIO: Not Reported

BASIS OF BENEFIT-COST RATIO: The Flood Control Act of 1960 included no quantitative language concerning the benefits or costs but authorized the rehabilitation of 430,000 lineal feet of levee. In 1974 language was added to increase the lineal feet by an additional 405,000 feet. In 2007, the Water Resources Development Act of 2007 authorized an additional 80,000 lineal feet for a total of 915,000 lineal feet. The total base project cost is computed based on the current estimated total project cost expended to date, the remaining costs to date, an assumed spending stream throughout the 42 years of the project life, discounted to 1963 when the first appropriation was provided. Due to the language in the initial authorization stating that the benefits obviously exceeded the costs, the annual benefits are not available as they were absent from the original authorization and an economic reanalysis has never been performed. (See OTHER INFORMATION.)

FED		COST	ACCUM PCT OF EST	PHYSICAL STATUS CMPL	PCT SCHE DULE	COMPLETION
SUMMARIZED FINANCIAL DATA				(1 JAN 2010)		
Separable Element 1 (non-separable elements)	Bank			Protection Recreation	100	 100
Estimated Federal Cost		$299,458,000				
Estimated Non-Federal Cost		$149,881,000				
Cash Contribution	$129,391,000					
Other Costs	20,490,000					
Total Separable Element 1		$449,339,000				
Separable Element 2 (Completed Fish & Wildlife Mitigation)				Bank Protection Recreation		100 100
Estimated Federal Cost		$ 1,336,000				
Estimated Non-Federal Cost		$ 784,000				
Cash Contribution	$ 84,000					
Other Costs	700,000					
Total Separable Element 2		$ 2,120,000				
Separable Element 3 (LCA 41)						
Estimated Federal Cost		$ 8,619,000		Bank Protection Recreation		100 100
Estimated Non-Federal Cost		$ 2,873,000				
Cash Contribution	$ 1,857,000					

Division: South Pacific District: Sacramento Sacramento River Bank Protection, California

SUMMARIZED FINANCIAL DATA (CONTINUED)

		PCT FED	ACCUM OF EST COST
Other Costs	1,016,000		
Total Separable Element 3		$ 11,492,000	
Separable Element 4 (LCA 38B, 40, & 42)			
Estimated Federal Cost		$ 57,187,000	
Estimated Non-Federal Cost		$ 19,062,000	
Cash Contribution	$ 19,062,000		
Other Costs	0		
Total Separable Element 4		$ 76,249,000	
Project Summary			
Estimated Federal Cost		$366,600,000	
Estimated Non-Federal Cost		$172,600,000	
Cash Contribution	$150,394,000		
Other Costs	22,206,000		
Total Estimated Project Cost		$539,200,000	
Allocations to 30 September 2007		$174,975,000	
Allocation for FY 2008		14,932,000	
Allocation for FY 2009		22,967,000	
Conference Allowance for FY 2010		14,171,000	
Allocation for FY 2010		14,171,000	
Allocations through FY 2010		227,045,000	62

SUMMARIZED FINANCIAL DATA (CONTINUED)

Allocation Requested for FY 2011		10,000,000	65
Programmed Balance to Complete after FY 2011		129,555,000	
Unprogrammed Balance to Completed after FY2011		0	

Bank Protection	82	2021
Entire Project	90	2021

PHYSICAL DATA

Bank Protection: 915,000 lineal feet
First Phase – 430,000 lineal feet
Second Phase – 485,000 lineal feet

Division: South Pacific District: Sacramento Sacramento River Bank Protection, California

JUSTIFICATION: The Sacramento River Flood Control Project consists of 977 miles of levees plus overflow weirs, pumping plants and bypass channels along the Sacramento River from RM 0 near Collinsville to RM 194 near Chico, including several sloughs and the lower reaches of major tributaries. The Sacramento River levee system was initiated as a purely local project and in many cases the levees were constructed close to the riverbanks without a protective berm. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project. Bank protection is necessary to preserve the Sacramento River Flood Control Project and insure that it will continue to furnish the designed degree of protection. The levees are continuously threatened by erosion, and unless corrective measures are taken, levee failures may occur with resultant catastrophic damage and possible loss of many lives. Flood events that occurred in February 1986 and January 1997greatly emphasized these problems. Several levees located along the Sacramento River were subjected to an extensive amount of erosion due to the extremely high river flows. High flows in January and March 1995 caused flooding and erosion in the Butte Basin area along the Sacramento River, River Mile (RM) 188 at Glenn County Road 29. If levee repairs had not been made, additional flooding would have caused extensive loss of agricultural land and endangered residents in nearby communities of Butte City, Princeton and Colusa. In addition, during moderately high flows in February 1996, a 500 foot portion of berm on the American River failed, threatening the levee protecting the City of Sacramento. A contract was awarded in August 1996 to repair this section and provide bank protection for a total of 1,200 lineal feet. The 1997 flood event and the high flows experienced in 1998 again put additional stress on the levee system (approximately 1,100 river miles) within the Sacramento River Bank Protection Project. The sustained high water in January/February 2006 caused great concern and instigated an emergency declaration from the governor of California relative to levee repair. The area protected by the levees comprises over one million acres in which about 50 communities are located; value of improvements (October 2003 prices) to be protected is about $38 billion and about 2.3 million people live within the flood plain. The levee system enables the use of the flood plain for the benefit of the state and nation. The extremely fertile flood plain lands produce about 6.6 percent of the total agricultural production of the state and over 88 percent of the State's rice production. The Sacramento River Bank Protection Project provides a long-range program of bank protection to protect the levees where serious erosion is occurring and to prevent erosion from undermining additional levee sections in the future. In addition to assuring urgently needed flood protection, the project provides recreation facilities consisting of boat-launching facilities, campgrounds, and picnic areas needed along the river to meet a rapidly increasing public demand. Since the initial bank protection contract was let in June 1963, about 827,100 lineal feet of bank protection has been provided. Approximately 87,900 lineal feet of bank protection, including 80,000 authorized by WRDA 2007, remains to be placed on the second phase of this project. The local sponsor supports the addition of a third phase, which will require Congressional authorization. A General Reevaluation Report (GRR) is being conducted to address these sites.

FISCAL YEAR 2010: The current amount is being applied as follows:

Design and Construct Bank Protection and Mitigate For Habitat Loss – 2 Contracts	$ 8,671,000
Engineering and Design During Construction	2,000,000
Construction Management	300,000
Initiate Post Authorization Change Report/ Environmental Impact Statement/Environmental Impact Report (PAC/EIS/EIR)	3,200,000
Total	$14,171,000

FISCAL YEAR 2011: The requested amount will be applied as follows:

Design and Construct Bank Protection and Mitigate For Habitat Loss – 2 Contracts	$ 4,500,000
Engineering and Design During Construction	2,000,000
Construction Management	300,000
Post Authorization Change Report/ Environmental Impact Statement/Environmental Impact Report (PAC/EIS/EIR)	3,200,000
Total	$10,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

	Annual	
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 16,167,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	6,039,000	
Pay 30 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for remaining work and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	129,391,000	$1,174,000
Pay 4 percent of the total cost of separable element 2, fish and wildlife mitigation, to bring the total non-Federal share of costs of separable element 2 to 37 percent for work performed, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of this functional portion of the project.	84,000	
Pay 16 percent of the total cost of Separable Element 3 to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation and maintenance repair, rehabilitation and replacement of flood control facilities.	1,857,000	18,000
Pay 25 percent of the total cost of Separable Element 4 to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation and maintenance repair, rehabilitation and replacement of flood control facilities.	19,062,000	187,000
Total Non-Federal Costs	$172,600,000	$1,379,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Pacific District: Sacramento Sacramento River Bank Protection, California

STATUS OF LOCAL COOPERATION: Chapter 2188, Statutes of the State of California, approved by the Governor on 21 July 1961, established the State Reclamation Board as the agency to meet the requirements of local cooperation for the project. Assurances of local cooperation were accepted from the Board 5 February 1963. The Reclamation Board signed a Local Cooperation Agreement (LCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) for the remaining Second Phase work in May 1984. In accordance with provisions of the Water Resources Development Act of 1986 for separable project elements initiated after 30 April 1986, new LCAs were executed for separable element 41 on 15 August 1988 and for separable elements 38B, 40, and 42 on 7 December 1988. The LCA for the First Phase Mitigation was signed on 5 June 1990. The current non-Federal cost estimate of $172,600,000 is the same as the latest estimate presented to Congress (FY2010).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $366,600,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed on 15 June 1973. An SEIS for the Second Phase was filed in February 1989. A final EIS for additional work in Butte Basin, and an update submitted as Supplement 4, were signed in June 1988. An Environmental Assessment/Site Specific Report (EA/SSR) was prepared for Contract 42A and a Finding of No Significant Impacts (FONSI) was signed on 15 February 1994. An EA/SSR was prepared for Contracts Lower American River site 3 and 40D and FONSIs were signed 2 July 1996 and 3 September 1997, respectively. A Supplemental Design Memorandum No. 8 was prepared for sites along the lower American River and the SEIS was completed in April 1998. Currently, an EA/SSR to meet both Federal and State of California requirements is approved prior to construction of each bank protection contract. The EA for sites to be constructed in 2011 was approved June 2009.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1962, and for construction in FY 1963. Construction of First Phase was completed in November 1974. Authority to proceed with additional bank protection work, Second Phase, was provided by Section 202, River Basin Monetary Authorization Act of 1974, Public Law 93-251. The Further Continuing Appropriations Act of 1983, Public Law 97-377, extended the limits of the project to include bank protection along the Sacramento River to the upstream ends of the project levees to Chico Landing (Butte Basin area). The Water Resources Development Act of 1986 modified the First Phase of the project to include acquisition of lands for establishment and maintenance of wildlife habitat at a total cost of $1,410,000 ($2,120,000 inflated through construction). The last parcel was acquired in Fiscal Year 1997. Re-vegetation has been highly successful and is serving as a model for re-vegetation efforts by others. Monitoring of fish and wildlife habitat and engineering features continues at each site.
OTHER INFORMATION (Continued)
The U.S. Fish and Wildlife Service, by letter dated November 7, 1985, issued a Biological Opinion stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued a revised opinion on 19 May 1987 that permitted limited rock revetment bank protection to be constructed in the Butte Basin. The potential impact to winter-run salmon has also been a significant concern as the winter-run salmon have experienced an alarming decline since 1969. The National Marine Fisheries Service (NMFS) listed winter-run salmon as a threatened species in November 1990. The winter-run salmon biological data report was completed January 1991. NMFS Biological Opinion dated 28 October 1991 for the winter-run salmon was non-jeopardy but lists recommended conservation measures. Winter-run salmon, along with bank swallows and Swainson's Hawk, are also State listed species and a Biological Opinion was received from California Department of Fish and Game on 18 November 1991 which also recommends conservation measures.

On August 23, 2001, the U.S. Fish and Wildlife Service issued its final Biological Opinion on the Sacramento River Bank Protection Project (SRBPP). The National Marine Fisheries Service released their opinion on September 27, 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as jeopardizing the existence of five fish species (Delta smelt, Sacramento splittail, winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead) listed under the Endangered Species Act in the Sacramento River. With recent collaborative efforts, most repair sites have been self-mitigating.

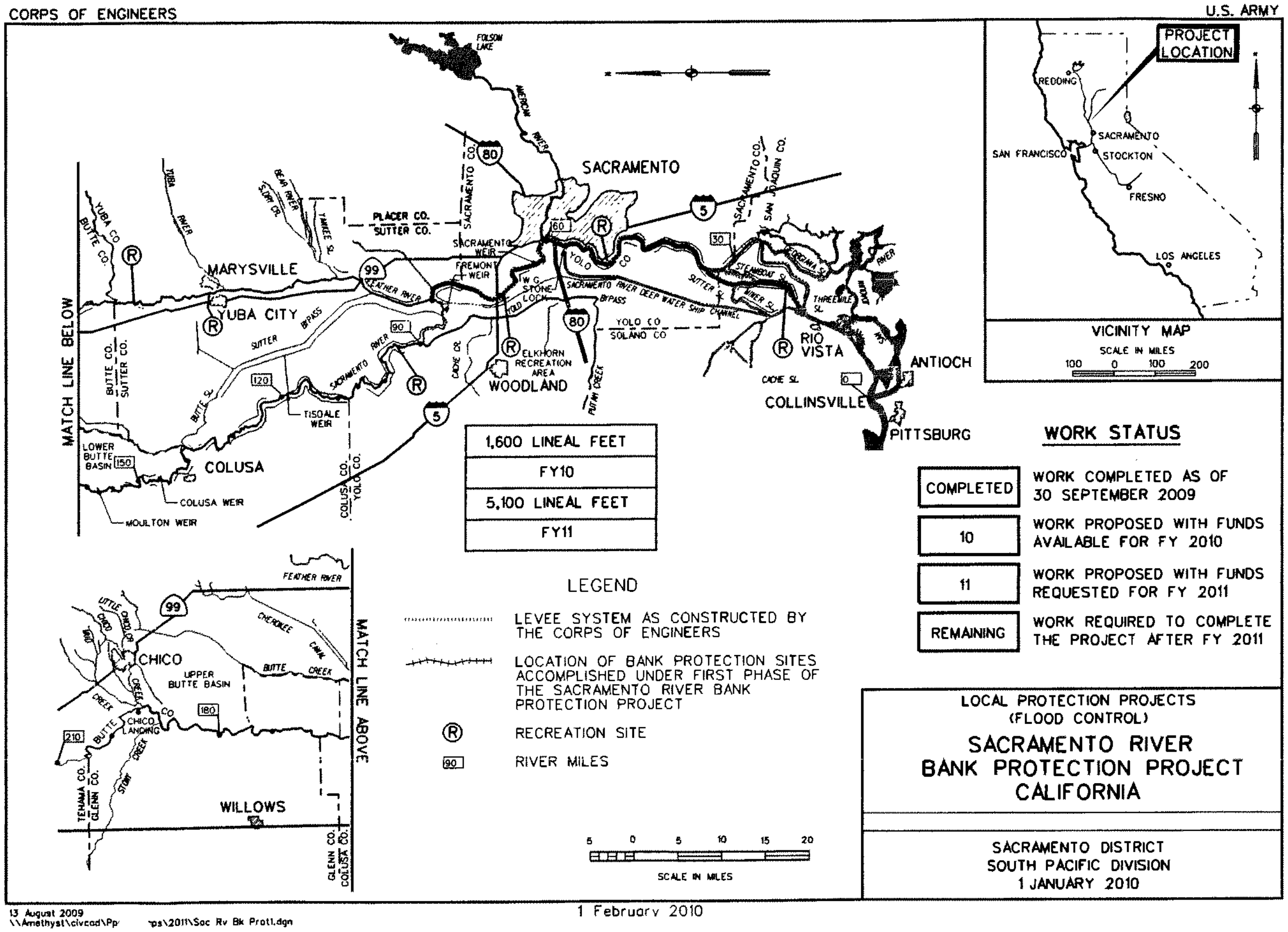
After the February 1986 flood, the Sacramento River System experienced below normal precipitation and flood flows. This led to a lower rate of erosion and a lowered need for expedited bank protection work. However, the storms of 1995 and 1997, plus the sustained high water in 2006, have caused substantial erosion damage and the urgency for bank protection is vital.

The 2005 and 2006 Erosion Inventory Reconnaissance report identified 57 Critical Erosion Sites which resulted in an emergency declaration by Governor Schwarzenegger. The Department of Water Resources (DWR) and the Corps repaired 33 sites beginning in fiscal year 2006 and completing in fiscal year 2007. During the first quarter of FY 2008, 24 sites (10 DWR and 14 Corps led) were repaired. Eight sites were constructed in fall 2008. The State of California has provided accelerated funds ahead of the cost share with the aid of a Local Cooperation Agreement amendment, executed 5 May 2006, allowing the project to accept funds ahead of the cost share balance, so that work on the sites may proceed unimpeded. Ten new sites were constructed in 2009 totaling 8200 lineal feet.

The Flood Control Act of 1960 included no quantitative language concerning the benefits or costs but authorized the rehabilitation of 430,000 lineal feet of levee. In 1974 language was added to increase the lineal feet by an additional 405,000 feet. WRDA 2007 authorized an additional 80,000 lineal feet for a total of 915,000 lineal feet. The total base project cost is computed based on the current estimated total project cost expended to date, the remaining costs to date, an assumed spending stream throughout the 42 years of the project life, discounted to 1963 when the first appropriation was provided. Due to the language in the initial authorization stating that the benefits obviously exceeded the costs, the annual benefits are not available as they were absent from the original authorization and an economic reanalysis has never been performed. Remaining project cost is based on the current estimate of completing the last 87,900 lineal feet (includes the 80,000 lineal feet authorized in WRDA 2007). The RBRCR of 10.0 was based on a sample of levee repairs currently studied on the Sacramento main stem.

This is the lowest benefit value included in the analytical base and is considered a conservative estimate. A new cost estimate is being prepared as part of the Post Authorization Change Report being prepared to address the latest WRDA 2007 authorization of an additional 80,000 linear feet. An EIS and GRR are being prepared to implement this work. The estimated date for completion is July 2011.

Project schedule for completion in 2021 is currently under review. Due to policy changes regarding vegetation on levees, project completion will likely be delayed significantly.
The fish and wildlife mitigation cost is estimated at $31 million.



1,600 LINEAL FEET
FY10
5,100 LINEAL FEET
FY11

LEGEND

┈┈┈	LEVEE SYSTEM AS CONSTRUCTED BY THE CORPS OF ENGINEERS
┼┼┼	LOCATION OF BANK PROTECTION SITES ACCOMPLISHED UNDER FIRST PHASE OF THE SACRAMENTO RIVER BANK PROTECTION PROJECT
Ⓡ	RECREATION SITE
90	RIVER MILES

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2009
10	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
11	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
SACRAMENTO RIVER
BANK PROTECTION PROJECT
CALIFORNIA

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010

CORPS OF ENGINEERS

U.S. ARMY

COMPLETED WORK

FIRST PHASE, BANK PROTECTION:
CONTRACTS 1 THRU 26 (430,000 LF)

SECOND PHASE PART 1, BANK PROTECTION:
CONTRACTS 27 THRU 36 (182,000 LF)

SECOND PHASE PART II, BANK PROTECTION:
PRE-SEPARABLE ELEMENT (46,744 LF)
37 (RM 0-62)
38A (RM 60-145)
39 (RM 177-194)

SEPARABLE ELEMENT 38B (14,436 LF)
38B (RM 60-120)

SEPARABLE ELEMENT 40 (40,794 LF)
EMERGENCY COUNTY ROAD 29 (RM 186-188)
40A (RM 132-180)
40B-1 (RM 187-192)
40B-M (RM 145-194)
40C (RM 15-25)
STEAMBOAT, MINER & SUTTER SL.
40C-M (RM 15-25)
40D (RM 16, 1R) STEAMBOAT SL.
40D-M (RM SL16.1)
40E (RM 149)

SEPARABLE ELEMENT 41 (29,475 LF)
41A (RM 0-60)
41A-M1 (RM 20-60)
41A-M2 (RM 20-60)
41A-M3 (RM 20-60)
41A-M4 (RM 20-60)
41A-M5 (RM 20-60)
41B (FEATHER RIVER)
41B-M (FEATHER RIVER)

COMPLETED WORK (Cont.)

SECOND PHASE PART II, BANK PROTECTION (CONT.):
SEPARABLE ELEMENT 42 (17,362 LF)
42A (RM 60-145)
42A-M (RM 60-145)
42A-M1 (RM 60-145)
42C (RM 90.4 & 90.9) FISH CURT.
42C-M (RM 90.4 & 90.9) FISH CURT.
42D (RD 108-COLUSA BASIN)
42D-M (RD 108-COLUSA BASIN)
LAR 1A1 (SITE 3)
LAR 1A2 (RM 4.4, SITE 3, RIVER PARK)
LAR 1A2-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1A3-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1B (RM 2-9, SITES 1, 2 & 4)
LAR 1B-M (RM 2-9, SITES 1, 2 & 4)
LAR 2 (SITE 5, PHASE 1)
LAR 2 (SITE 5, PHASE 2)
LAR 2-M (SITE 5, PHASE 3)

SACRAMENTO RIVER MILE -		CACHE SLOUGH
49.6L	53.5R	21.8R
49.7L	56.7L	
49.9L	26.9L	STEAMBOAT SLOUGH
50.2L	34.5R	16.6R
50.4L	72.2R	
50.8L	99.3R	AMERICAN RIVER
51.5L	123.5L	0.3L
52.3L	177.8R	2.8L
53.1L		

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2009
10	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
11	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

COMPLETED WORK (CON'T)

SAC RIVER MILE:	42.7L 55.2L 87.0L 73.5L 93.7L 114.5R 136.7R 136.9.5R
FEATHER RIVER RM	28.5 5.5
STEAMBOAT SLOUGH RM	0.4

WORK PROPOSED WITH FY10 FUNDS

SAC RIVER 57.2

(WEST SACRAMENTO SET BACK LEVEE)

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010

13 August 2009
Z:\Ppmd_maps\2011\Sac Rv Bk Prot2.fn

1 February 2010

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-mile reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties, southeast and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The plan of improvement provides for construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the plan includes recreational development and purchase of lands for mitigation and preservation of endangered species. A project for San Timoteo Creek was added to the Santa Ana River Mainstem project by the Energy and Water Development Appropriation Act of 1988. A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose and was completed in June 1994. Construction was initiated in Fiscal Year 1994. The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These recreational features are not included in the current estimate pending development of plans and determination of costs.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, Water Resources Development Act of 1996, and Water Resources Development Act of 2007.

REMAINING BENEFIT-REMAINING COST RATIO: 6.2 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.49 to 1 at 7 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8 5/8 percent (FY 1988)

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Phase II General Design Memorandum dated August 1988 at October 1987 price levels. Limited economic analysis completed in 2005 and approved in 2007.

RISK INDEX: 500

BASIS of RISK INDEX: The Risk index is computed during budget development using the following: risk velocity times the risk depth times the population at risk, all divided by the warning time.

Division: South Pacific District: Los Angeles Santa Ana River Mainstem, California

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 1,178,000,000		Seven Oaks Dam	100	August 1999
Programmed Construction	$1,177,100,000			Prado Dam	55	December 2013
Unprogrammed Construction	1,000,000			Santiago Creek	10	December 2014
				Mill Creek	100	March 1992
Estimated Non-Federal Cost		$ 712,000,000		Oak Street Drain	100	September 1994
Programmed Construction	$ 711,000,000			Lwr SAR Rch 9 & SARI Line	40	December 2010
Cash Contributions	95,000,000			Lower Santa Ana Rch 1-8,10	97	December 2008
Other Costs	660,000,000			Marsh	100	March 1991
Reimbursements	(44,000,000)			San Timoteo	99	December 2014
Estimated Non-Federal Cost						
Unprogrammed Construction	$ 1,000,000			Total Project	82	December 2014
Cash Contributions	1,000,000					
Other Costs	0					
Total Estimated Programmed Construction Costs		$ 1,888,000,000				
Total Estimated Unprogrammed Construction Costs		$ 2,000,000				
Total Estimated Project Cost		$ 1,890,000,000 1/				
Allocations to 30 September 2007		$ 874,492,000				
Allocations for FY2008		20,664,000				
Allocations for FY2009		43,050,000 2/				
Conference Allowance for FY 2010		52,193,000				
Allocation for FY 2010		49,310,000				
Allocations Through FY 2010		987,516,000	84			
Allocation Requested for FY 2011		25,000,000	86			
Programmed Balance to Complete after FY 2011		164,484,000				
Unprogrammed Balance to complete after FY 2011		1,000,000				

1/ Reflects $39,500,000 to be reimbursed to judgment fund for Seven Oaks claim
2/ Includes $27,550,000 of ARRA funds

Division: South Pacific District: Los Angeles Santa Ana River Mainstem, California

PHYSICAL DATA:
SEVEN OAKS DAM:
Dam: Type - Impervious core
  Height - 550 feet
  Length - Crest Length 2,980 feet
Outlet Works: Gated conduit, 8,000 cfs maximum discharge
Basin Capacity: 145,600 acre-feet
Spillway: Type - Detached overflow, 500 ft wide, unlined
Embankment: Earth and Rock fill
Lands & Damages: Acres - 2,736 existing streambed and
  undeveloped (mountainous)
Water Quality Study

MILL CREEK
Levee repair: Type - Grouted riprap
Height - 10 feet maximum
Length - 12,500 feet (2.4 miles) of existing
  13,600 feet (2.6 miles
Lands & Damages: Acres – 1661 grazing, wildlife
Floodwall (Top of levee): Type – Concrete
  Height - 7.5 feet maximum
  Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:
Channel: Rectangular concrete 3.0 mile
  Trapezoidal riprap 0.3 miles
Lands & Damages: 34 acres for rights-of-way

SANTIAGO CREEK:
Channel: Rectangular concrete 500 feet
  Trapezoidal riprap 2.0 miles
Reservoir: Buttressed
Basin Capacity: Flood control 4,620 acre-feet (el. 274 to 298)
Lands and Damages: 281.5 acres, reservoir and channel

PRADO DAM:
Dam: Type - Impervious core

Height - 134 feet
Length - 3,050 crest length
Outlet Works: Gated conduits
30,000 cfs maximum discharge
Embankment: Rolled earth fill
Spillway: Type - Detached, overflow concrete, 1,000 feet wide,
578,000 cfs maximum design discharge.
Basin Capacity: 362,000 acre-feet

LOWER SANTA ANA RIVER:
Channel: - 200-450 feet wide,
34 bridges replaced or modified
Relocate sewage and brine line (SARI) Santa Ana River Interceptor Line
- 5.0 miles trapezoidal concrete
- 2.4 miles rectangular concrete
- 15.5 miles trapezoidal grouted riprap
- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)
Mitigation Lands: Acres - 92-marsh restoration

RECREATION FACILITIES:
LOWER SANTA ANA RIVER: Bicycle/equestrian trail - 32 miles

SANTIAGO CREEK: Trails - Bicycle and equestrian (1 mile)
Rest stop - Concrete bicycle wheel stops
SEVEN OAKS TO PRADO DAM: To be developed
SAN TIMOTEO CREEK – To be developed

SAN TIMOTEO CREEK:
Channel: 5.4 miles trapezoidal concrete
Basins: 18 in-channel and transition chute
Lands & Damages: 60.3 acres for rights-of-way

JUSTIFICATION: Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir. A severe flood threat exists in this area, which could cause damages in excess of $15 billion and could endanger and disrupt the lives of over three million people living or working in the floodplain. Damages upstream of Prado Reservoir could exceed $450 million. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The greatest potential damage area is the Orange County floodplain below Prado Dam. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused $4 million in damages ($141 million at 2009 prices). Following this storm, Prado Dam was constructed at the head of the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered $85 million in damages, Prado Dam prevented an estimated $525 million in damages to downstream communities. With current development, damages for a similar flood would be approximately $4.29 billion, at 2009 prices. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. With the project, the level of protection downstream of Prado would be increased to 190 years.

Average annual benefits are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$ 231,801,000
Recreation	282,000
Total	$ 232,083,000

FISCAL YEAR 2010: The current amount of $49,310,000 is being applied as follows: fully funding construction of the Reach 9 channel Phase 2A, the Auxillary Dike and Yorba Slaughter Dike, continue Seven Oaks Mitigation, continue design on Prado Spillway and the remaining Prado Interior Dikes.

FISCAL YEAR 2011: The requested amount will be used to:

Fully fund Alcoa Dike Construction contract	$ 19,000,000
Fully fund Women's Prison Dike Construction contract	4,000,000
Planning, Engineering and Design	1,000,000
Construction Management	1,000,000
Total	$25,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the following requirements listed below.

Requirements of Local Cooperation and Project Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Santa Ana River Mainstem: Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	$ 158,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	165,000,000	
Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 31 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	63,000,000	$ 2,194,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	1,000,000	6,000
Reimburse 100 percent of the Federal funds, loaned to the sponsor for work on San Timoteo Creek, within a period of 30 years following the completion of the project, in accordance with section 103 (k) of the Water Resources Development Act of 1986.	6,000,000	

NON-FEDERAL COSTS (CONT.):

Prado Dam:		
Provide lands, easements, rights-of-way, and borrow, excavated or dredged material disposal areas.	314,000,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	17,000,000	
Pay 5 percent cash of the costs allocated to flood control to bring the total non-Federal Share of flood control costs to 50 percent, and bear all costs of operation, maintenance, Repair, rehabilitation and replacement of flood control facilities.	32,000,000	200,000
Estimated reimbursement to local sponsor for LERRDS in excess of 45 percent of total project costs for flood control, subject to availability of funds.	(44,000,000)	
Total Non-Federal Costs	$ 712,000,000	$ 2,400,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. In accordance with Memorandum of Agreement executed on 6 December 1987, Orange County contributed $3 million to assure the project design schedule was maintained. Orange County has received credit for those funds towards their share of the project costs during construction. In addition, Orange County worked with California Department of Transportation (CALTRANS) to relocate some key bridges in Fiscal Year 1988, in advance of project construction. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. A draft Local Cost Sharing Agreement for recreation on Santiago Creek has been reviewed and approved by the local sponsor, Orange County, and the Orange County Department of Harbors, Beaches and Parks. Schedules for executing a Project Cooperation Agreement and programming this work are being determined. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103 (a) (3) of Water Resources Development Act of 1996. A Project Cooperation Agreement for Prado Dam was executed in February 2003.

The current non-Federal cost estimate of $712,000,000, which includes a cash contribution of $95,000,000, is an increase of $184,000,000 from the non-Federal cost estimate of $528,000,000 noted in the current amended Local Cooperation Agreement dated February 2003, which included a cash contribution of $59,306,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a reasonable plan for meeting their financial commitments. On 30 June 1997, the Assistant Secretary of the Army (Civil

STATUS OF LOCAL COOPERATION CONTINUED
Works) approved Prado Dam as a separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,178,000,000 is an increase of $6,900,000 from the latest estimate ($1,171,100,000) presented to Congress (FY 2010). This change includes the following items.

Item	Amount
Price leveling, inflation and other adjustments (including contingency adjustments)	$6,900,000
Total	$6,900,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental Protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979, and funds to initiate construction were appropriated in FY 1990.

An agreement with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and Least Bell's Vireo at Prado Dam) was reached on the number of acres for mitigation. The final biological opinion necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989.

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989, which produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. These agencies had a role in the determination of project associated impacts as well as mitigation needs and opportunities. Estimated fish and wildlife mitigation costs for Seven Oaks Dam are $8,600,000 ($6,450,000 Federal and $2,150,000 non-Federal), for San Timoteo are $2,743,000 ($2,725,000 Federal and $18,000 non-Federal) and for Lower Santa Ana are $6,713,000 ($6,537,000 Federal and $176,000 non-Federal.)

Section 104 of the Energy and Water Development Appropriation Act of 1988 authorized "...San Timoteo Creek in the vicinity of Loma Linda for construction as part of the Santa Ana River Mainstem including Santiago Creek Project... the benefits and costs of the San Timoteo project shall be included together with the benefits and costs of the Santa Ana Mainstem including Santiago Creek. The total costs for the Santa Ana Mainstem,

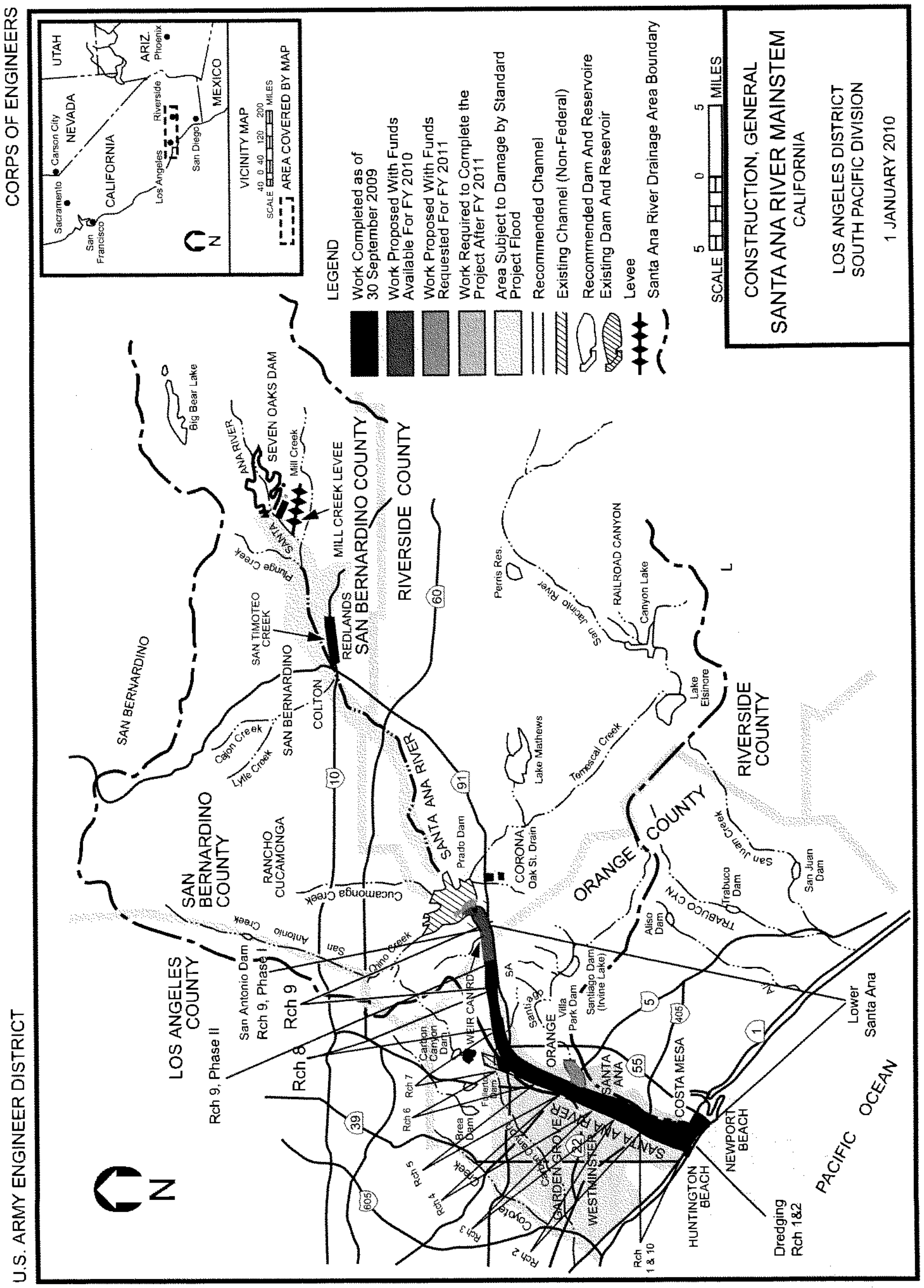
OTHER INFORMATION CONTINUED
including Santiago Creek, is to be raised by $25,000,000." A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose. Construction was initiated in August 1994 with funds specifically identified in Act Language through 2006 for a total of $78,400,000.

The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These features are not included in the current estimate pending development of plans and determination of costs.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with a portion of California State Route 71, which has been relocated for the Prado Dam project.

Total Lands, Easements, Rights of Ways, Relocations and Disposals (LERRD) for the Prado Dam project is being estimated above 45 percent of the total project cost for flood control. Upon completion of the project and final accounting, the government, subject to availability of funds, shall reimburse the Non-Federal sponsor for any such value in excess of 45 percent of total project costs to bring the ultimate cost sharing to 50 percent Federal and 50 percent Non-Federal for the Prado Dam Project.

The full operation of Prado Dam at the designed release flow of 30,000 cubic feet per second will be contingent upon completing the relocation of the Santa Ana River Intercept or Line (SARI) and the lower river channel. Congressional language in the Water Resources Development Act of 2007 increased the project cost to $1,800,000,000 and included the SARI line as an authorized element of the project. This authority sufficiently increased the 902 maximum authorized total project cost to cover the added SARI line relocation, which is a 100% non-federal cost.


U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONSTRUCTION, GENERAL
SANTA ANA RIVER MAINSTEM
CALIFORNIA
LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010
SCALE 5 0 5 MILES
LEGEND
Work Completed as of 30 September 2009
Work Proposed With Funds Available For FY 2010
Work Proposed With Funds Requested For FY 2011
Work Required to Complete the Project After FY 2011
Area Subject to Damage by Standard Project Flood
Recommended Channel
Existing Channel (Non-Federal)
Recommended Dam And Reservoire
Existing Dam And Reservoir
Levee
Santa Ana River Drainage Area Boundary
VICINITY MAP
SCALE 40 0 40 120 200 MILES
AREA COVERED BY MAP
UTAH
NEVADA
CALIFORNIA
ARIZ.
MEXICO
Sacramento
Carson City
San Francisco
Los Angeles
Riverside
San Diego
Phoenix
N
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
ORANGE COUNTY
SAN BERNARDINO
SEVEN OAKS DAM
SANTA ANA RIVER
Big Bear Lake
Mill Creek
MILL CREEK LEVEE
Plunge Creek
SAN TIMOTEO CREEK
REDLANDS
COLTON
Cajon Creek
Lytle Creek
RANCHO CUCAMONGA
Cucamonga Creek
San Antonio Creek
San Antonio Dam
Chino Creek
Prado Dam
CORONA
Oak St. Drain
Lake Mathews
Temescal Creek
Lake Elsinore
Perris Res.
San Jacinto River
RAILROAD CANYON
Canyon Lake
San Juan Creek
San Juan Dam
TRABUCO CYN
Trabuco Dam
Aliso Dam
Santiago Dam (Irvine Lake)
Villa Park Dam
Santiago
Carbon Canyon Dam
WEIR CANYON
Fullerton Dam
Brea Dam
Coyote Creek
ORANGE
SANTA ANA
GARDEN GROVE
WESTMINSTER
COSTA MESA
NEWPORT BEACH
HUNTINGTON BEACH
PACIFIC OCEAN
Lower Santa Ana
Rch 9, Phase II
Rch 9, Phase I
Rch 9
Rch 8
Rch 7
Rch 6
Rch 5
Rch 4
Rch 3
Rch 2
Rch 1 & 10
Dredging Rch 1&2
SA
10
60
91
39
605
22
55
5
405
1

APPROPRIATION TITLE: Construction – Local Protection (Flood Control)

PROJECT: South Sacramento County Streams, California (Continuing)

LOCATION: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. Most of the basin is situated in the Sacramento Valley. The eastern-most parts of the basin are in the lower foothills of the Sierra Nevada. A portion of the basin lies within the Sacramento city limits, south of the city center.

DESCRIPTION: The selected plan would include the following principal flood control features: raising and extending the ring levee around the Sacramento Regional Water Treatment Plant (SRWTP); raising the Beach Stone Lakes and Morrison Creek levees; installing floodwalls (using sheet pile) on Morrison Creek, Elder Creek, Florin Creek and Unionhouse Creek, and retrofitting bridges to lower risk of failure due to flooding. Recreation features include a bicycle and pedestrian trail. Restoration of ecosystem at five sites would increase water quality to open water environments and enhance and expand wetlands, riparian vegetation, grasslands, and woodlands.

AUTHORIZATION: Water Resources Development Act of 1999, Sec. 101(a)(8)

REMAINING BENEFIT-REMAINING COST RATIO: 3.93 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 3.9 to 1 at 7 percent.

INITIAL BENEFIT–COST RATIO: 3.9 to 1 at 6 5/8 percent (FY2002)

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the Limited Reevaluation Report (LRR) dated December 2004 (October 2003 price level). Current costs and benefits will be addressed in a Post Authorization Change Report (PACR). See OTHER INFORMATION.

SUMMARIZED FINANCIAL DATA

				ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 67,500,000		
Estimated Non-Federal Cost		$ 36,800,000		
Cash Contribution	$24,263,000			
Other Costs	5,344,000			
Section 104 Credit	7,193,000			
Total Estimated Project Cost	$104,3	00,000		
Allocations to 30 September 2007			$ 31,594,800	
Allocations for FY 2008			10,537,000	
Allocations for FY 2009			15,000,000 [2/]	
Conference Allowance for FY 2010			2,500,000	
Allocation for FY 2010			2,500,000	
Allocations through FY 2010			59,631,800	88
Allocation Requested for FY 2011			4,800,000	95
Programmed Balance to Complete After FY 2011			$ 3,068,200	
Unprogrammed Balance to Complete After FY 2011			0	

STATUS (1 JAN 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	50	Sep 2012 [1/]

PHYSICAL DATA

Beach Stone Lakes
  Floodwalls: .4 mile
  Levee Raising: 4.0 miles
  New Levee: 1.3 miles
  Levee Improvement: 2.0 miles
Morrison Creek
  Levee Raising: .6 mile
  Levee Improvement: 3.8 miles
  Floodwalls: 3.8 miles
Florin Creek
  Floodwalls: 3.8 miles
Elder Creek
  Levee Improvement: 1.0 mile
  Floodwalls: 2.6 miles
Union house Creek
  Levee improvement: .9 mile
  Floodwalls: 2.0 miles
Bridge Retrofits
Ecosystem restoration: 266 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands
Recreation features: 4.5 mile paved

1/ Current authorization.
2/ Includes American Recovery and Reinvestment (ARRA) funding of $4,000,000.

Division: South Pacific District: Sacramento South Sacramento County Streams, California

PHYSICAL DATA (CONT.)
bicycle and pedestrian trail with signs,
fencing and benches

JUSTIFICATION: Significant portions of the area were flooded in 1952, 1955, 1962, 1963, 1967, 1969, 1973, 1982, 1986, 1995, and 1997. In January 1995, the most intense rainfall recorded in the watershed, resulted in record flows on Morrison Creek, resulting in flows near or exceeding the 1 in 100 annual event. Levee failure along Morrison, Unionhouse, Elder, and Florin Creeks and the SRWTP and Beach Stone Lakes levees could result in flooding of more than 14,000 acres. Approximately 41,000 structures are within the 500-year floodplain with an estimated value of $5.6 billion. Significant development has occurred in the upper basin, in the Elk Grove area, which is increasing the runoff and potential for flooding. The population of the area is over 100,000 and flooding could result in loss of lives, mainly by drowning from rapid inundation in some areas of the flood plain. Once the floodwaters recede, there would be other impacts on public health and safety. The levees along Morrison Creek and tributaries provide less than a 1% annual chance flood event. The selected plan, known as the Consistent High Protection Plan, would provide a greater than a 1% annual chance flood event to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1% annual chance flood event would result in nearly $715 million in damages (existing conditions) and more than $2 billion in damages for a 0.2% annual chance flood event.

The average annual benefits at October 2003 price levels are as follows:

Annual Benefits	Amount
Flood Control	$23,600,000
Recreation	141,000
Environmental Restoration	0 1/
Total	$23,741,000

1/ Ecosystem restoration benefits are not measured in dollars; however, restoration included 266 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands.

FISCAL YEAR 2010: Current year funds of $2,500,000 and carryover funds will be used to award a construction contract to complete Morrison Creek along the Union Pacific Railroad.

FISCAL YEAR 2011: Pending reauthorization of total project costs, the requested amount will be applied as follows:

Initiate Design Contract for Florin and Morrison Creeks upstream of Union Pacific Railroad	$1,800,000
Initiate Construction on Union house	2,500,000
Engineering and Design During Construction	300,000
Construction Management	200,000
Total	$4,800,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

		Annual
Requirements of Local Cooperation	Payments During Construction and Reimbursements	Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 4,241,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	1,103,000	
Receive credit for prior work accomplished IAW section 104 of WRDAS 86	7,193,000	
Pay 22.8 percent of the costs allocated to flood control and environmental restoration to bring the total non-Federal share of flood control and environmental restoration costs to 35% and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control and environmental restoration facilities.	23,385,000	413,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	878,000	42,000

Division: South Pacific District: Sacramento South Sacramento County Streams, California

NON-FEDERAL COSTS (CONTINUED)

Requirements of Local Cooperation	Annual Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Total Non-Federal Costs	$ 36,800,000	$ 455,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of California Central Valley Flood Protection Board, in conjunction with the Sacramento Area Flood Control Agency (SAFCA), will act as the non-Federal sponsor for the flood control features of the project. The current non-Federal cost estimate of $36,800,000 includes a cash contribution of $24,263,000. As provided in Section 104 of the Water Resources Development Act of 1986 (PL 99-662), SAFCA applied for credit against their share of the design and construction cost of the project for work carried out after the reconnaissance phase consistent with the ultimately authorized plan. On September 12, 1996, the Assistant Secretary of the Army (Civil Works) approved potential credit for SAFCA, estimated at $7.1 million. The Section 104 credit amount approved by ASA (CW) in January 2006 was $7,193,252. On January 15, 1998, SAFCA passed a resolution adopting the Consistent High Protection Plan as the locally preferred plan and indicated their intent to participate as the non-Federal sponsor. This plan would provide a consistent level of protection throughout the study area. SAFCA, along with the State of California Central Valley Flood Protection Board, has established a fund to mitigate project-related hydraulic impacts downstream in the Beach Stone Lakes and Point Pleasant areas. This fund would be approximately $2 million and be borne 100 percent by the non-Federal sponsor. The Project Cooperation Agreement (PCA) for environmental restoration was signed 18 September 2003 and the PCA for flood control was signed 20 May 2005. The sponsor has a reasonable plan for implementation to meet its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $67,500,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA on 15 May 1998. A finding of No Significant Impact regarding the revised design was signed 16 December 2004.

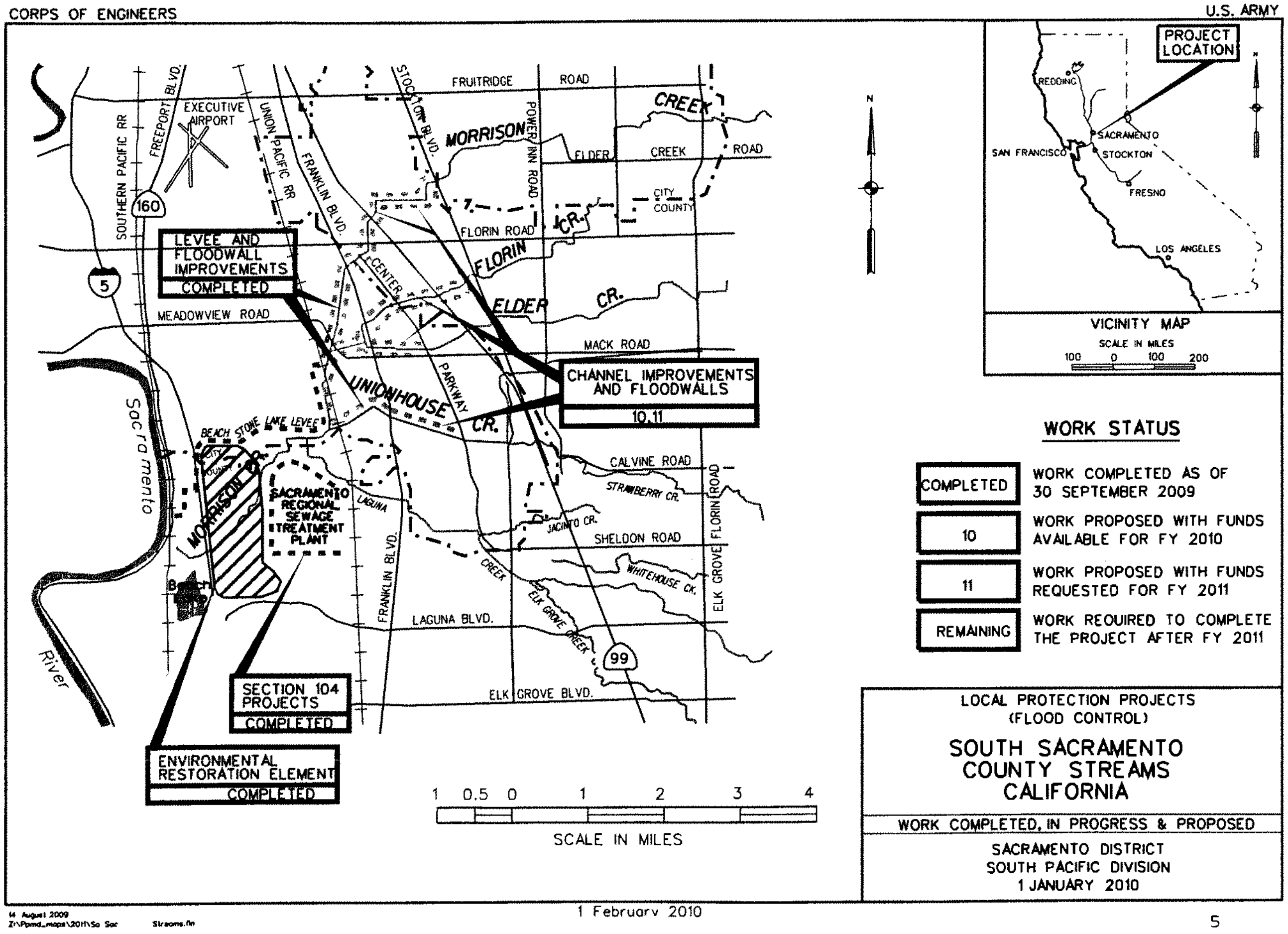
OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2002. The initial construction contract (contract 1A) for the lower reaches of the project from the Union Pacific Railroad to the Sacramento River was awarded on June 14, 2005.

The restoration monitoring contract was completed in FY2008.

Project cost is being updated and will surpass Section 902 limit, and an increased authorization will be required. A Post Authorization Change Report (PACR) is being prepared to quantify the amount of additional authorization required to complete the project and is scheduled for completion in July 2011. A Limited Reevaluation Report, with updated benefits and costs, is being prepared for the PACR.

The Federal share of project costs assumes use of $4,000,000 in American Recovery and Reinvestment Act (ARRA) funds. Due to changed on site project conditions, AARA funds may not be necessary. Requirements would be satisfied through out year funding requests.

Fish and wildlife mitigation costs are currently estimated at $1,536,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2009
10	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
11	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SOUTH SACRAMENTO
COUNTY STREAMS
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010

1 February 2010

5

APPROPRIATION TITLE: Construction - Dam Safety Assurance

PROJECT: Success Dam and Reservoir, Tule River, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The project area is located in Tulare County within the 12,500 square-mile Tulare Lake Basin in the southeastern portion of the San Joaquin Valley about 60 miles north of the city of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake and flows from the lake on to the valley through the city of Porterville, and continues another 25 miles through agricultural areas.

DESCRIPTION: A Dam Safety Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Section 10 of the 1944 Flood Control Act; Energy and Water Development Appropriations Act, 2010 (P.L. 111-85, Sec. 118)

REMAINING BENEFIT-REMAINING COST RATIO: N/A

TOTAL BENEFIT-COST RATIO: N/A

BASIS OF BENEFIT-COST RATIO: N/A

STATUS	PCT	PHYSICAL COMPLETION

SUMMARIZED FINANCIAL DATA (1 JAN 2010)

Estimated Appropriation Requirements (COE)		$500,000,000	
Future Non-Federal Reimbursement		7,200,000	
Estimated Federal Cost (Ultimate)		492,800,000	
Estimated Non-Federal Cost		7,200,000	
Cash Contribution	$ 0		
Other Costs	0		
Reimbursements	7,200,000		
Total Estimated Project Cost		$500,000,000	

Allocations thru 30 September 2007	$36,722,700	1/	
Allocation for FY 2008	5,008,000		
Allocation for FY 2009	-3,210,000	2/	
Conference Allowance for FY 2010	2,500,000		
Allocation for FY 2010	2,500,000		
Allocations through FY 2010	41,020,700		8
Allocation Requested for FY 2011	500,000		8
Programmed Balance to Complete after FY 2011	458,479,300	3/	
Unprogrammed Balance to Complete after FY 2011	0		

	CMPL SCHEDULE
Entire Project	Not Started TBD

PHYSICAL DATA

Dam-earthfill
Gated outlet conduit
Uncontrolled spillway 200 feet wide
Crest length 3,404 feet (Abutment to Abutment)
Crest width 22.5 feet

1/ Includes $344,000 for PED funded under the Operations and Maintenance Appropriation.

2/ Includes reduction of $2,810,000 in previously appropriated funds redirected for other purposes as authorized by Omnibus Appropriations Act, 2009, P.L. 111-8. Funds of $400,000 were reprogrammed to another project.

3/ Non-federal sponsor has up to 50 years to repay their share of project costs; therefore appropriations for entire project cost must be programmed.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately $14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, "Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California" (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in the US. Army Corps of Engineers, Engineering Regulation for Earthquake Design and Evaluation for Civil Works (ER 1110-2-1806) dated 16 May 1983. Review of the Dynamic Analysis report determined that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies concluded that a Maximum Credible Earthquake would cause extensive loss of strength, slope instability, and deformation over a section of the Success Dam embankment. This damage may be sufficient to result in an uncontrollable loss of the reservoir pool through a breach in the embankment. Similar damage levels may also result from lesser earthquake events. Any breach of the dam should be expected to result in loss of life and damages estimated at $941 million (2004 prices).

The Lower Tule River Irrigation District has been identified as the primary non-Federal cost-sharing sponsor based on their conservation use of the project.

FISCAL YEAR 2010: Current year funds in the amount of $2,500,000 and carryover funds will be used to complete 35% design of the outlet works and control tower, continue oversight of physical and numerical modeling of the spillway, initiate and complete the independent external peer review, initiate and complete the evaluation of the upstream conduit and intake structure, continue preparation of 90% Design Documentation Report, and complete analysis of the 2 to 1 embankment slope.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Planning, Engineering, and Design	$500,000
Sign Record of Decision, and obtain approval from SPD/HQ on Decision Document	
Complete Physical and Numerical Modeling of the Spillway	
Complete 90% Design Documentation Report	
Total	$500,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Reimburse 15 percent of the costs of modification allocated to irrigation water supply (9.5% of total project cost) within a period of 30 years following completion of construction.	$7,200,000	
Total Non-Federal Costs	$7,200,000	

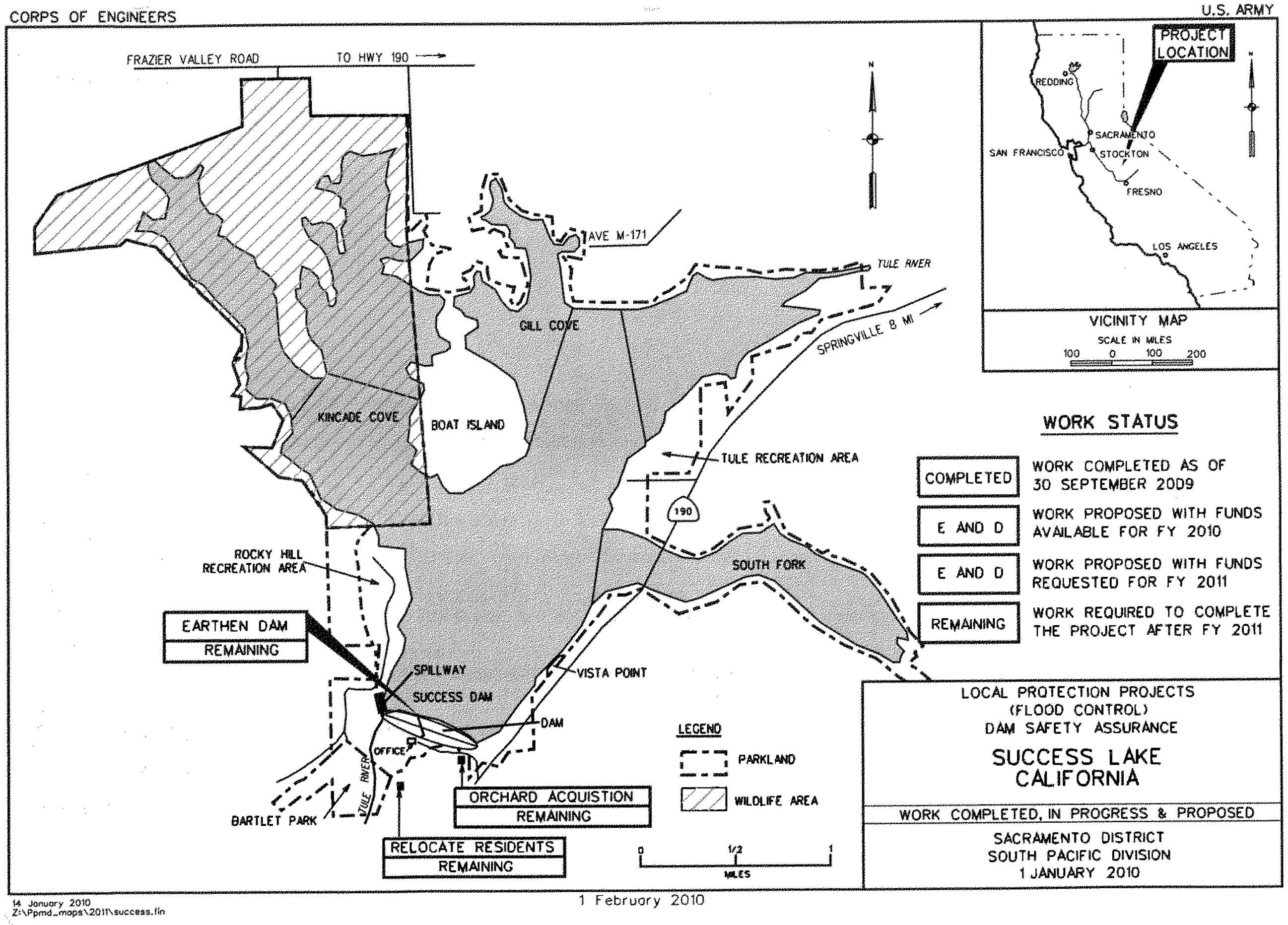
The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 30 years following completion of construction in accordance with Water Resources Development Act of 1986 and Public Law 98-404.

STATUS OF LOCAL COOPERATION: In accordance with the Water Resources Development Act of 1986 and Public Law 98-404 the sponsor is required to sign a Cost-Sharing Agreement with the Department of Interior prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $500,000,000 is the same as the latest estimate presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

OTHER INFORMATION: The Success Dam, Success Lake, Tule River, California Dam Safety Assurance Program Evaluation Report dated January 1999 was approved on 7 May 1999. Following approval of the report, preconstruction, engineering and design was initiated using Operations and Maintenance appropriation funding. Construction funds were initially appropriated in FY 2000. The pool operating restriction will have to remain in place until the authorized spillway raise project is constructed.


CORPS OF ENGINEERS
U.S. ARMY
FRAZIER VALLEY ROAD
TO HWY 190
N
AVE M-171
TULE RIVER
SPRINGVILLE 8 MI
GILL COVE
KINCADE COVE
BOAT ISLAND
TULE RECREATION AREA
190
SOUTH FORK
ROCKY HILL RECREATION AREA
EARTHEN DAM
REMAINING
SPILLWAY
SUCCESS DAM
VISTA POINT
DAM
OFFICE
TULE RIVER
BARTLET PARK
ORCHARD ACQUISTION
REMAINING
RELOCATE RESIDENTS
REMAINING
LEGEND
PARKLAND
WILDLIFE AREA
0
1/2
1
MILES
PROJECT LOCATION
REDDING
SACRAMENTO
SAN FRANCISCO
STOCKTON
FRESNO
LOS ANGELES
VICINITY MAP
SCALE IN MILES
100 0 100 200
WORK STATUS
COMPLETED
WORK COMPLETED AS OF 30 SEPTEMBER 2009
E AND D
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
E AND D
WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING
WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011
LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
DAM SAFETY ASSURANCE
SUCCESS LAKE
CALIFORNIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010
14 January 2010
Z:\Ppmd_maps\2011\success.fin
1 February 2010

APPROPRIATION TITLE: Construction - Local Protection (Flood Control)

PROJECT: West Sacramento, California (Continuing)

LOCATION: The project is located in West Sacramento, Yolo County in north-central California.

DESCRIPTION: The project consists of raising 4.9 miles of levees up to 5.0 feet along the Sacramento and Yolo Bypasses; constructing concrete wing walls with stop logs at the Southern Pacific Railroad; constructing a concrete wing wall and flow cut-off wall on each side of Interstate 80; and developing approximately 40 acres of mitigation lands for riparian and upland habitat loss.

AUTHORIZATION: Water Resources Development Act of 1992 (P.L. 102-580), Sec. 101(4); Energy and Water Development Appropriations Act, 1999 (P.L.105-245), Energy and Water Development Appropriations Act, 2010 (P.L. 111-85, sec 118)

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: 7.9 to 1 at 7 percent (FY 2009)

INITIAL BENEFIT-COST RATIO: 6.5 to 1 at 8-1/4 percent (FY 1995).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the General Design Memorandum for West Sacramento, California, May 1995 at October 1994 price levels. Economic re-evaluations are currently underway, and are expected to be available in the spring of 2010. Current Total Benefit-Cost Ratio of 7.9 was prepared for Fiscal Year 2009.

Division: South Pacific District: Sacramento West Sacramento, California

SUMMARIZED FINANCIAL DATA			ACCUM. PCT OF EST FED COST
Estimated Federal Cost		$39,780,000	
Estimated Non-Federal Cost		13,260,000	
Cash Contribution	$10,801,000		
Other Costs	2,459,000		
Total Estimated Project Cost		$53,040,000	
Allocations to 30 September 2007		$24,055,000	
Allocation for FY 2008		4,373,000	
Allocation for FY 2009		3,000,000	
Conference Allowance for FY 2010		448,000 1/	
Allocation for FY 2010		0	
Allocations through FY 2010		31,876,000	80
Allocation Requested for FY 2011		5,000,000	93
Programmed Balance to Complete after FY 2011		2,904,000	
Unprogammed Balance to Complete after FY 2011		0	

STATUS (1 JAN 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Levees	80	
Mitigation	N/A	
Entire project	80	2012

PHYSICAL DATA

Sacramento Bypass, South Levee
  Length: 1 mile
  Maximum Height Increase: 3.0 feet
Yolo Bypass, East Levee
  Length: 3.9 miles
  Maximum Height Increase: 5.0 feet
Southern Pacific Railroad: Stop logs
Interstate 80: Wing walls and cut off walls

1/ Investigations funds.

JUSTIFICATION: Construction of this project will provide protection to lands, improvements, and 47,000 people (January 2009) in West Sacramento. Estimated damageable property in the floodplain is $3.5 billion (Oct 2007 prices). Flooding in February 1986, in conjunction with subsequent updated hydrologic analyses, have shown that the existing level of flood protection is significantly less than previously thought and does not provide FEMA 100-year level of protection. Levee failure along the Yolo Bypass would release floodwater from the Sacramento River into the West Sacramento urban area, inundating industrial areas, two major highways, thousands of homes and thousands of acres of farmland. Average annual benefits; all flood control, amounts to $27.9 million.

Division: South Pacific District: Sacramento West Sacramento, California

FISCAL YEAR 2010: Previously appropriated funds will be used for design of northern slump repair.

FISCAL YEAR 2011: The requested amount will be applied as follows:

Construction of Slump Repairs	$4,750,000
Construction Management	250,000
Total	$5,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 2,331,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	128,000	
Pay 19 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	10,801,000	$75,000
Total Non-Federal Costs	$13,260,000	$75,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The State of California Central Valley Flood Protection Board (CVFPB) is the non-Federal sponsor for the project. The Project Cooperation Agreement (PCA) was executed in May 1996. The sponsor has a reasonable and implementable plan for meeting its financial commitment. Project Partnership Agreement (PPA) amendment to be signed in September 2010.

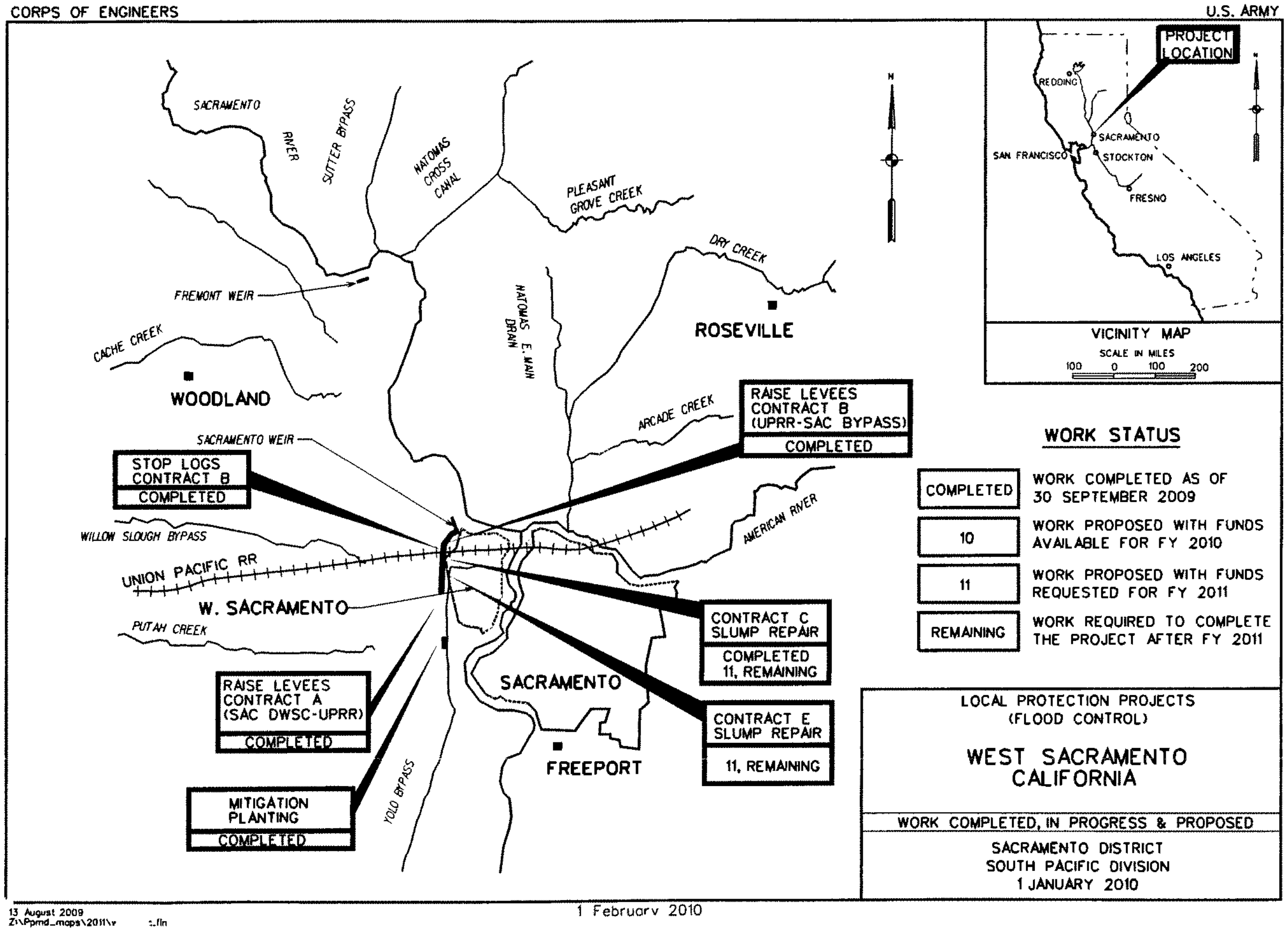
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $39,780,000 is an increase of $8,352,000 from the latest estimate ($31,428,000) presented to Congress (FY 2010).

	Item	
	Levee Repairs	$ 6,508,000
	Engineering and Design	1,344,000
	Construction Management	500,000
Total		$8,352,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in February 1992.

OTHER INFORMATION: Funds were appropriated in FY 1992 to initiate preconstruction engineering and design for the combined American River Watershed and Sacramento Metropolitan studies, and funds to initiate construction were appropriated in FY 1996. The two projects were separated when WRDA 1992 authorized the West Sacramento Project (Sacramento Metropolitan) independently of the American River Watershed Project. Project was reauthorized under P.L. 105-245 at a total project cost of $32,900,000, and in P.L. 111-85 at a total project cost of $53,040,000. Project levees were reconstructed in 1998 and during the flood events of January and April 2006, two slips occurred on the levees on the Yolo Bypass. The O&M manual was not complete at the time of the slips. At the request of the Non-Federal Sponsor, a reevaluation is being performed of the entire levee system. Total project costs are expected to increase significantly requiring an additional project cost increase/reauthorization.

Implementation guidance is being prepared for the new 902 limit which was authorized per FY 2010 E&WA and will be completed May 2010.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2009
10	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2010
11	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

WEST SACRAMENTO
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010

1 February 2010

NAVIGATION

CONSTRUCTION

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Oakland Harbor, California (50-ft) (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: The project consists of deepening the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer turning basins. Approximately 12.8 million cubic yards of excavated dredged material will require disposal. The middle harbor enhancement area (MHEA) will use about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the inner harbor. Previously authorized deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor to 42 feet deep was completed in July 1998.

AUTHORIZATION: Section 101(a) (7) of the 1999 Water Resources Development Act.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project construction is substantially completed.

TOTAL BENEFIT - COST RATIO: 5.0 to 1.0 @ 7 percent.

INITIAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 7 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation included in the Chief of Engineer's report approved in April 1999 at 1998 prices. A recent economic evaluation in January 2010 reflects that the Average Annual Benefits are now $165,000,000 from $175,122,000 and the total project cost of $423,397,000 reflects a new BCR of 5.0 at 7% based on October 2009 prices.

ACCUM

SUMMARIZED FINANCIAL DATA			PCT OF EST FED COST
Estimated Appropriation Requirement (USACE)		$ 244,312,000	
Estimated Appropriation Requirement (USCG)		300,000	
Estimated Total Appropriation Requirement		244,612,000	
Estimated Non-Federal Cost		$ 187,785,000	
Cash Contribution	$150,194,000		
Other Costs	37,591,000		
Total Estimated Project Cost		$ 432,397,000	
Allocation to 30 September 2007		$ 163,548,000	
Allocation for FY 2008		40,878,000	
Allocation for FY 2009		32,892,000 1/	
Conference Allowance for FY 2010		1,000,000	
Allocation for FY 2010		1,000,000	
Allocation through FY 2010		238,318,000	98
Allocation Requested for FY 2011		4,330,000	99
Programmed Balance to Complete after FY 2011		1,664,000	
Unprogrammed Balance to Complete after FY 2011		0	

1/ Included ARRA funds of $7,800,000.

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	96	2016

PHYSICAL DATA

Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.

Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.
Habitat: Create 190 acres of shallow water and sub-tidal habitat.

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. Major Imports include any cargo which can be shipped via container, including electronics, mercantile, raw cotton, animal feed, meat, coffee, tea and spices, iron and steel, wood, lumber, sundries, etc. Basically all cargo, excluding bulk elements such as grain, oil, and other bulk materials, can be shipped in container boxes and will be shipped from Asia to the Midwest and beyond, through the Port of Oakland. Major Exports include agricultural produce and beverages from California, meat, electronics, automobile parts, pulp and waste paper, specialized industrial machinery, and synthetic resins and plastic chemicals, and are shipped to Asia through the Port of Oakland.

The existing Federal navigation channel serving Oakland Harbor is now adequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and deployment of the next generation of containerships. Annual tonnage handled by the Port is 30 million tons per year. Average annual benefits, all commercial navigation, are estimated at $165,000,000. Savings per ton of cargo (Average Annual Benefits/Average Annual tonnage) is $5.5/ton.

The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998. Vessels may now depart the Port with some additional cargo, but must still arrive light-loaded. The remainder of the project is needed to allow safe and efficient utilization of the Port. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future. Recent economic events have resulted in a downturn in worldwide shipping which has caused a reevaluation of shipping routes and new port developments for the near future. Current information indicates that the current 5200 and 6000 TEU ships will be operating as the standard vessel for at 6 to 7 more years.

There are currently 2 major upland dredged material sites that are available to handle the remainder of the Oakland -50' deepening project dredged material, Hamilton Wetland Restoration site and the Montezuma Wetland Restoration site. In the event that the upland sites are unavailable, then the ocean disposal site, SF-DODS, is available.

FISCAL YEAR 2010: FY 2010 Funds in the amount of $1,000,000 will be used to develop plans and specifications for a Middle Harbor Enhancement Area (MHEA) Final Grading construction contract.

FISCAL YEAR 2011: The requested amount of $4,330,000 is applied as follows:

Initiate and complete Phase 2F contract to complete final grading of MHEA	$1,475,000
Initiate and complete Phase 2G contract to complete MHEA Eelgrass Planting	1,330,000
Initiate adaptive management contract for maintenance and monitoring of the MHEA Habitat	1,000,000
Planning, Engineering and Design	350,000
Construction Management	175,000
Total	$ 4,330,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments R During Rehabilitation, Construction and and Repl Reimbursements Co	Annual Operation, Maintenance, epair, acement sts
Provide lands, easements, rights of way, and dredged material disposal areas.	$16,198,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	10,000,000	N/A
In-Kind Credit for 50% of Section 203 expenditures for Feasibility Study and Project Coordination Team to be reimbursed during construction as detailed In Water Resources Development Act of 1986.	11,393,000	
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	62,294,000	$694,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992. Requirements of Local Cooperation (Continued)	27,303,000	N/A
Pay 100% of the costs for local service facilities and berthing facilities.	60,597,000	N/A
Total Non-Federal Costs	$ 187,785,000	$ 694,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction. Total cash contribution equals $89,597,600.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 foot deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of $187,785,000, which includes a cash contribution of $89,597,600, is approximately $39,310,200 more than the amount reflected in the Project Cooperation Agreement. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

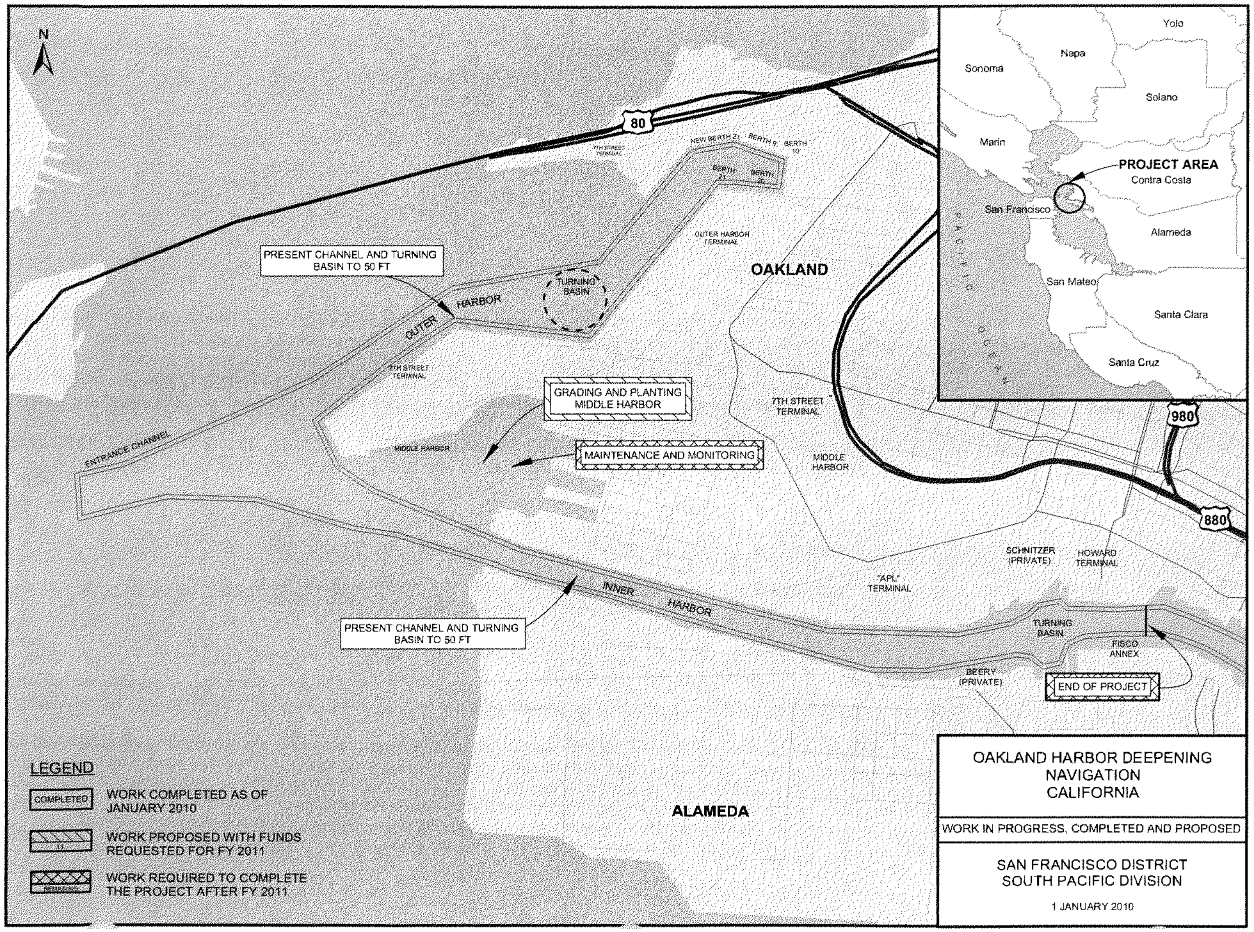
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate (ultimate) of $244,612,000 is an increase of $4,672,000 from the last estimate presented to Congress (FY 2010).

Item		Amount
	Contract Award and Other Estimated Adjustments (Including contingency and cost share adjustments)	$ 3,462,000
	Contract Claim and administrative expenses related To dredged material offloading delays	$ 1,210,000
Total		$ 4,672,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on 27 September 2001. The Oakland Harbor PCA amendment package for acceptance of additional local funds was executed February 2005. The local sponsor has contributed additional funds to the project in FY 2006 to maintain the schedule. The remaining funds for FY 2011 and beyond are the mitigation costs for final grading and eelgrass planting ($4,330,000) as well as adaptive management and monitoring until FY 2016 ($1,664,000). We are still under the Section 902 limit of $433,664,000 (October 2008).

U.S. ARMY CORPS OF ENGINEERS



OAKLAND HARBOR DEEPENING
NAVIGATION
CALIFORNIA

WORK IN PROGRESS, COMPLETED AND PROPOSED

SAN FRANCISCO DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2010

LEGEND

COMPLETED	WORK COMPLETED AS OF JANUARY 2010
11	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2011
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2011

APPROPRIATION TITLE: Construction - Channels and Harbors (Navigation)

PROJECT: Sacramento Deep Water Ship Channel, California (Continuing)

LOCATION: The project is located on the Sacramento River between Collinsville and the Port of Sacramento, a distance of about 43 miles, in the counties of Sacramento, Contra Costa, Solano, and Yolo in California.

DESCRIPTION: The project deepens the existing 30 feet Sacramento River from New York Slough to the Port of Sacramento, a distance of about 43 miles, to a depth of 35 feet. The project provides for establishment of wetland habitat and upland habitat to mitigate losses. Construction was initiated in 1989, but stopped at the sponsor's request in 1990. Renewed interest by the Port of Sacramento initiated the Limited Reevaluation Report (LRR) in 2002, and their recent partnership with the Port of Oakland supports the early completion of the LRR and the construction of the deeper channel.

AUTHORIZATION: Supplemental Appropriations Act of 1985; Section 202(a) of the 1986 Water Resources Development Act; Section 102(d) of the 1990 Water Resources Development Act; Section 305 and Section 347(a)(2) of the 2000 Water Resources Development Act; Section 3030 and Section 3179 1(a)(1) of the 2007 Water Resources Development Act.

REMAINING BENEFIT - REMAINING COST RATIO: 3.4 @ 7 percent.

TOTAL BENEFIT - COST RATIO: 2.7 @ 7 percent.

INITIAL BENEFIT-COST RATIO: 2.5 to 1 @ 8 1/8 percent.

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation in the General Design Memorandum, March 1986, approved in May 1987 at October 1985 price levels. A LRR is currently underway to verify to economic and environmental feasibility of continuing the authorized and partially constructed deepening project. (See Other Information).

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Appropriation Requirement (COE)		$ 27,980,000	
Estimated Appropriation Requirement (USCG)		300,000	
Estimated Total Appropriation Requirement		28,280,000	
Estimated Non-Federal Cost		$ 29,060,000	
Cash Contribution	$ 9,330,000		
Other Costs	19,730,000		
Total Estimated Project Cost		$57,340,000	
Allocations to 30 September 2007		$9,304,000	
Allocation for FY 2008		1,266,000	
Allocation for FY 2009		957,000	
Conference Allowance for FY 2010		2,000,000	
Allocation for FY 2010		2,000,000	
Allocation through FY 2010		13,527,000	48
Allocation Requested for FY 2011		12,500,000	93
Programmed Balance to Complete after FY 2011		1,953,000	
Un-programmed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	16	Sep 2014

PHYSICAL DATA

Channels:
Deepen existing 30 feet Sacramento River from N.Y. Slough to the Port of Sacramento, a distance of about 43 miles, to 35 feet.

Fish and Wildlife Areas:
Deposit suitable dredged material at Prospect Island to aid in development of wetland and upland habitat for fish and wildlife mitigation and enhancement purposes

Division: South Pacific District: San Francisco Sacramento Deep Water Ship Channel, California

JUSTIFICATION: Since the existing channel was completed in 1963, tonnages have increased as a result of increased productivity of the agricultural industry in the northern and central portions of California, increasing exports of forest products from this region, and increased foreign demand for agricultural products. Imports, including nitrogenous fertilizers, bulk commodities, and general cargo have also increased during this period. In addition, the channel has provided deepwater access for industries in the service area. With the increase in the shipping industry, vessel sizes have also increased accordingly. However, due to the channel depth restriction, these larger vessels must currently carry only a partial load going to or from the Port of Sacramento. In 1992, 1,360,000 tons of commodities moved through the Port of Sacramento. Projected expansion in trade for the bulk commodities that move through Sacramento suggests potential justification for expanding the port to accommodate larger vessels. Once deepened, the Port would be able to accommodate 70% of the world's fleet at full design draft – currently it can accommodate only 20% of the world's fleet at design draft. Average annual benefits at 1 October 1985 price level are $10,620,000, all navigation.

FISCAL YEAR 2010: The current amount of $2,000,000 is being applied as follows:

Continue Planning, Engineering and Design	$ 2,000,000

FISCAL YEAR 2011: The requested amount of $12,500,000 will be applied as follows:

Initiate 1st Phase of Construction	$11,400,000
Planning, Engineering and Design	900,000
Construction Management	200,000
Total	$12,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 10,365,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	9,365,000	N/A
Pay 25 percent of the costs allocated to general navigation facilities during construction and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	9,330,000	
Total Non-Federal Costs	$ 29,060,000	N/A

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The authorized project, to deepen the existing channel from a depth of 30- to 35-feet, was initiated in 1989 but work was suspended in 1990 at the request of the sponsor, the Port of Sacramento, due to utility relocation issues and their inability to continue financing their share of project costs. In 1998 Congress directed the Corps to perform a re-evaluation of the project that would serve as the basis for possible recommendation to resume construction. This re-evaluation was initiated in 2002; however, in 2005 the Port requested that the study be suspended until they could solidify their financial situation. Recently, the Port of Oakland has agreed to expand their operational model and help operate the Port of Sacramento. Both Ports fully support the deepening study, considered critical to the continued existence of the Port and vital to ensuring the safe navigation within the channel.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $27,980,000 is the same as last presented to Congress (FY 2010).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Environmental Impact Statement was filed on 8 May 1981 with a Supplemental Environmental Impact Statement filed on 2 January 1987. An Environmental Assessment addressing the environmental impacts of changes in design due to deleting portions of planned widening was completed 1 May 1988, and a Finding of No Significant Impact was signed 1 August 1988. As part of the ongoing LRR, the Environmental impacts are being re-evaluated and a Supplemental EIS/R document is scheduled to be finalized in April 2011.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1982 and to initiate construction in the FY 1985 Supplemental Appropriations Act. The first construction contract for deepening was awarded in February 1989.

The local sponsor requested a delay in construction during fiscal years 1993 and 1994 in order to resolve utility relocations issues and pursue the establishment of an assessment district and/or the sale of lands as a means of meeting their remaining financial responsibility for project completion.

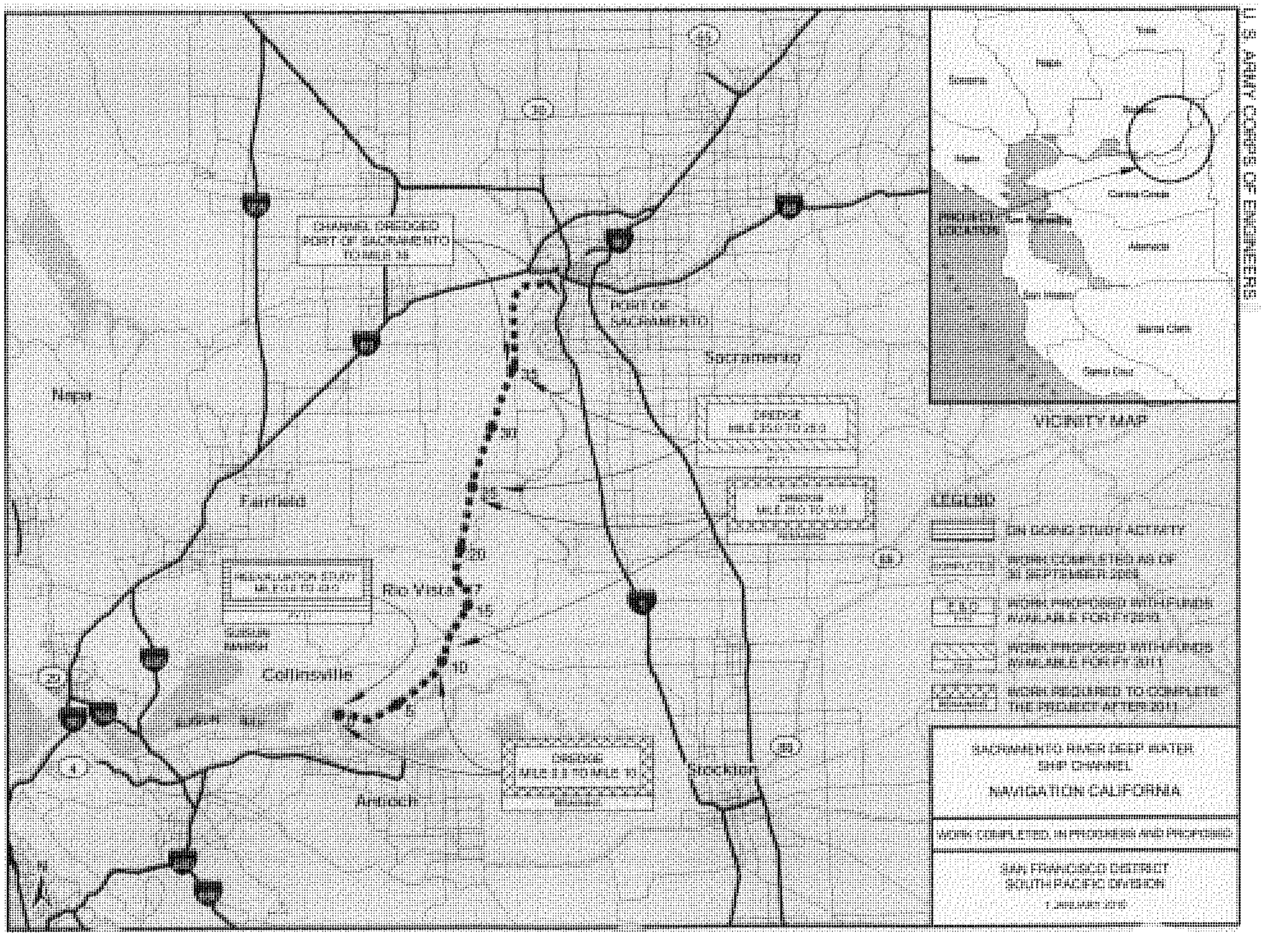
The Water Resources Development Act of 1990 includes language directing the Corps to enforce Section 10 authority for relocation of utility lines on a reimbursable basis. However, the Port requested the Corps not pursue enforcement and expects to solve differences with the utility company through litigation procedures.

The Water Resources Development Act of 2007 directed the Corps to credit the local sponsor for planning and design work carried out by the local sponsor prior to the date of the partnership agreement.

Completion dates for the remaining activities to complete the LRR are:

Completion of Planning, Engineering and Design activities – March 2011
PPA execute – July 2011
Plans and Specification complete and advertise – July 2011
Initiate Construction – September 2011

LRR was scheduled to be completed in May 2010, however, the addition of required environmental monitoring, new technical investigations and lengthy coordination requirements with Agencies and stakeholders has extended the completion date to March 2011. Costs and benefits will be revised to reflect current conditions. Benefit cost ration have been revised for compatibility with project scope and conditions represented in mid-1990's.


U.S. ARMY CORPS OF ENGINEERS
VICINITY MAP
PROJECT LOCATION
LEGEND
ON GOING STUDY ACTIVITY
WORK COMPLETED AS OF 30 SEPTEMBER 2009
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY2010
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
WORK REQUIRED TO COMPLETE THE PROJECT AFTER 2011
SACRAMENTO RIVER DEEP WATER SHIP CHANNEL
NAVIGATION CALIFORNIA
WORK COMPLETED, IN PROGRESS AND PROPOSED
SAN FRANCISCO DISTRICT
SOUTH PACIFIC DIVISION
CHANNEL DREDGED PORT OF SACRAMENTO
PORT OF SACRAMENTO
Sacramento
DREDGE
Napa
Fairfield
Rio Vista
Collinsville
Antioch
Stockton
30
20
10
5

ENVIRONMENT

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Environment)							
Malibu Creek Watershed, CA Los Angeles District	2,043,000	1,492,000	155,000	96,000	90,000	210,000	0

Study is located about 30 miles west of the City of Los Angeles. Approximately 2/3 of 109 square mile watershed is located in northwest Los Angeles County and 1/3 is in Ventura County. Malibu Creek watershed is within Santa Monica Mountains; a mix of urban development and open space. Malibu Creek drains into Malibu Lagoon and Santa Monica Bay. Rindge Dam, built in the 1920's, creates a barrier to the endangered steelhead trout's spawning ground, upstream of Malibu Creek. The sediment behind the dam could also be used to nourish downstream beaches in the city of Malibu and elsewhere in Los Angeles County. The study will develop a plan to manage the sediment to facilitate ongoing efforts to improve ecosystem in Malibu Creek and lagoon. Malibu Creek has a unique opportunity for systemic and sustainable environmental restoration. Malibu Creek has an important linkage to the Santa Monica Bay National Estuary; Malibu Lagoon which is one of two wetlands that still remain. Malibu Creek Watershed is home to the endangered Southern California steelhead and goby. It also is habitat for the threatened Arroyo chub and the California frog. Los Angeles Department of Water and Power, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2010 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2011 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $3,886,000, which is to be shared on a 50-50 percent basis by the Federal and non-Federal interests. Up to 100 percent of the non-Federal costs may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,986,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,943,000
Feasibility Phase (Non-Federal)	1,943,000

The reconnaissance phase completed July 2001. The feasibility study completion is scheduled for September 2011.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Environment)							
Rio Grande Basin, CO, NM and TX Albuquerque District	4,800,000	1,411,000	601,000	478,000	103,000	500,000	TBD

The study will address the water resources needs of the Rio Grande Basin, pursuant to Section 729 of the Water Resources Development Act of 1986 as amended, Section 202 of the Water Resources Development Act of 2000 and Section 2010 of the Water Resources Development Act of 2007. The Rio Grande Basin is located in the states of Colorado, New Mexico and Texas, and encompasses an area over 160,000 square miles, from the headwaters of the Rio Grande in central Colorado to its mouth at the Gulf of Mexico near Brownsville, Texas. Water conveyance and delivery, ecosystem degradation, and flooding are major issues in the basin. River flow regulation by nine major dams on the main stem and tributaries for flood control and water delivery has changed the historical flow regime in the Rio Grande. Water is diverted for irrigation, industrial and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the Endangered Species Act. This listing is impacting existing flood control and water delivery operations. Another critical issue is the ongoing loss of water supply storage at Elephant Butte Reservoir and Lake Amistad. Unless these losses are addressed, the Rio Grande Basin may lose at least one full year of its drought contingency potential by the year 2050. Many border cities in Texas and Mexico depend on the Rio Grande for water supply. Under international agreements, 60 percent of the Rio Grande water rights below Fort Quitman, Texas belong to Mexico. As a shared resource, it would benefit all users to address regional concerns. Some of the border cities also have rudimentary or non-existent water and wastewater treatment systems, further contributing to the degradation of the environment. The study will provide interagency collaboration for watershed analysis and adaptive management resource managers with information to maintain healthy watershed in Colorado, New Mexico and Texas; develop and evaluate potential salinity control management strategies based on stakeholder needs and priorities; identify the most promising methods and locations for salinity control projects; and evaluation of potential salinity control management strategies based on stakeholder needs and priorities.

Fiscal Year 2011 funds are being used to continue the watershed study. The estimated cost of the study is $6,000,000, which will be shared on a 75-25 percent basis by Federal and non-Federal interests, in accordance with Section 202 of the Water Resources Development Act of 2000, Section 2010 of the Water Resources Development Act of 2007 (modified non-Federal cost-sharing from 50% to 25%) and Section 108 of the 2008 Energy and Water Development Appropriations Act (allows the entire non-Federal share to be work-in-kind). A summary of study cost sharing is as follows:

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: South Pacific

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation FY 2010 $	Tentative Allocation FY 2011 $	Additional to Complete After FY 2011 $
SURVEYS – CONTINUING (Environment)							
Rio Grande Basin, CO, NM and TX Albuquerque District	4,800,000	1,411,000	601,000	478,000	103,000	300,000	TBD

Total Estimated Study Cost	$6,300,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	4,500,000
Feasibility Phase (Non-Federal)	1,500,000

The watershed study completion is being determined.

CONSTRUCTION

APPROPRIATION TITLE: Construction – Environmental Restoration and Protection

PROJECT: Hamilton Airfield Wetlands Restoration, California (Continuing)

LOCATION: Hamilton Airfield Wetland Restoration Project is located four miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The project was originally authorized for construction in Water Resources Development Act of 1999 § 101(b)(3), Pub. L. No. 106-53, 113 Stat 269 (WRDA 99) and includes restoring wetlands on a 988-acre parcel consisting of a former military runway and the adjacent California State Lands Commission area. The site, currently protected by levees, has subsided below the elevation of surrounding properties including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. Water Resources Development Act of 2007 § 3018, Pub. L. No. 110-114, 121 Stat. 1041 (WRDA 07) added the adjacent 1612-acres parcel of Bel Marin Keys Unit V, increasing the authorized project from 988 acres to approximately 2,600. The combined project provides for the restoration of both sites through the beneficial reuse of approximately 24.4 million cubic yards of dredged material. This includes 3 million cubic yards from the Oakland Harbor, CA (50-ft) deepening construction project being used as part of the effort to restore the Hamilton Airfield portion of the project. The project is an integral part of the long term management strategy (LTMS) for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: 1999 Water Resources Development Act, § 101(b)(3), Pub. L. No. 106-53, 113 Stat 269, *modified by* the 2007 Water Resources Development Act, § 3018, Pub. L. No. 110-114, 121 Stat. 1041.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: As required, both a cost-effectiveness and an incremental cost analysis were performed in order to evaluate the efficiency of the restoration alternatives, and to help in the identification of the National Ecosystem Restoration Plan (NER).

The Hamilton Airfield Wetland Restoration Feasibility study identified the "best buy" action alternatives, and chose Alternative Five as the NER plan for the Hamilton project on the basis of environmental significance, acceptability, completeness, and effectiveness. The Bel Marin Keys General Re-evaluation Report identified the "best buy" plans associated with the Bel Marin Keys Unit V Parcel and chose Revised Alternative 2 as the NER Plan for the Bel Marin Keys portion of the total project.

INITIAL BENEFIT – COST RATIO: Not applicable.

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits for seasonal and tidal wetland ecosystem restoration.

Division: South Pacific District: San Francisco Hamilton Airfield Wetlands Restoration, California

SUMMARIZED FINANCIAL DATA			
Estimated Federal Cost		$ 171,100,000	
Estimated Non-Federal Cost		57,000,000	
Cash Contribution	$ 32,400,000		
Other Costs	24,600,000		
Total Estimated Project Cost		$ 228,100,000	

STATUS (1 Jan 2010)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Entire Project	30	2032

PHYSICAL DATA

Placement of up to 24.4 million cubic yards of dredged material; Breach tidal levee; Construction of up to 65,000 linear ft of levees and wetland restoration of 2,600 acres

			ACCUM PCT OF EST FED COST
Allocation to 30 September 2007	$ 35,874,000		
Allocation for FY 2008	8,512,000		
Allocation for FY 2009	13,700,000	1/	
Conference Allowance for FY 2010	14,250,000		
Allocation for FY 2010	14,250,000		
Allocation through FY 2010	72,336,000		42
Allocation Requested for FY 2011	20,000,000		54
Programmed Balance to Complete after FY 2011	$ 78,764,000		

1/ Reflects $300,000 reprogrammed from the project.

Division: South Pacific District: San Francisco Hamilton Airfield Wetlands Restoration, California

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, currently protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals including at least two threatened and endangered species. The principal purpose of the project is restoration of wetland habitat via beneficial reuse of dredged material from San Francisco Bay dredging projects and in line with the Long Term Management Strategy (LTMS) goal. Approximately 1,000 acres of high value habitat will be restored by beneficially using 10 Million Cubic Yards of dredged sediments to restore the nature grade and tidal circulation of the project. This restoration will support endangered species and also represents the implementation pathway for the San Francisco Bay Long Term Management Strategy (LTMS). The LTMS is a regulatory framework on how to continue dredging in the Bay in an environmentally sustainable way. If the Hamilton project is not available for beneficial reuse then the LTMS strategy breaks down and there is a very real risk of reduced dredging and a commensurate drop in shipping due to draft limitations.

FISCAL YEAR 2010: The current amount of $14,250,000 is being applied as follows: Initiate Winterization of the Hamilton tidal area ($1,500,000), Shaping of the Northern and Southern Seasonal areas ($1,000,000), Bulge levee work (300,000), nursery plant propagation ($100,000); continue dredge material placement (8,300,000); Planning, Engineering and Design ($2,050,000); and Construction management ($1,000,000).

FISCAL YEAR 2011: The requested amount of $20,000,000 will be applied as follows:

Complete design of the Bel Marin Keys Unit V levee features	$ 500,000
Award Bel Marin Keys Unit V levee contract	9,000,000
Initiate the shaping of seasonal wetlands topograph	1,500,000
Continue placement of O&M dredged sediment	6,000,000
Planning, Engineering and Design	1,800,000
Construction Management	1,200,000
Total	$20,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the 1986 Water Resources Development Act (WRDA), the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 21,000,000	N/A
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary for the construction of the project.	3,600,000	N/A
Pay 14 percent of the construction costs allocated to fish and wildlife restoration/beneficial reuse of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 101(b) of the 1999 Water Resources Development Act.	32,400,000	$ 725,000
Total Non-Federal Costs	$ 57,000,000	$ 725,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

Division: South Pacific District: San Francisco Hamilton Airfield Wetlands Restoration, California

STATUS OF LOCAL COOPERATION: The California State Coastal Conservancy (SCC), the local sponsor, supports the project. The initial Hamilton Project Design Agreement was executed in September 1999. The subsequent Project Cooperation Agreement (PCA) for the Hamilton portion of the project was signed in April 2002 and was amended in January 2005 to allow acceptance of accelerated funds from the local Sponsor. In addition WRDA 2007 authorized the Inclusion of the Bel Marin Keys Unit V Parcel increment into the previously authorized project and increased the authorized project cost to $228,100,000. The current estimated non-Federal cost is $57,000,000. The Corps and the non-Federal Sponsor are jointly developing an amendment to the existing PCA that will memorialize the WRDA 2007 addition of the Bel Marin Keys Unit V Parcel into the Authorized project schedule in March 2010.

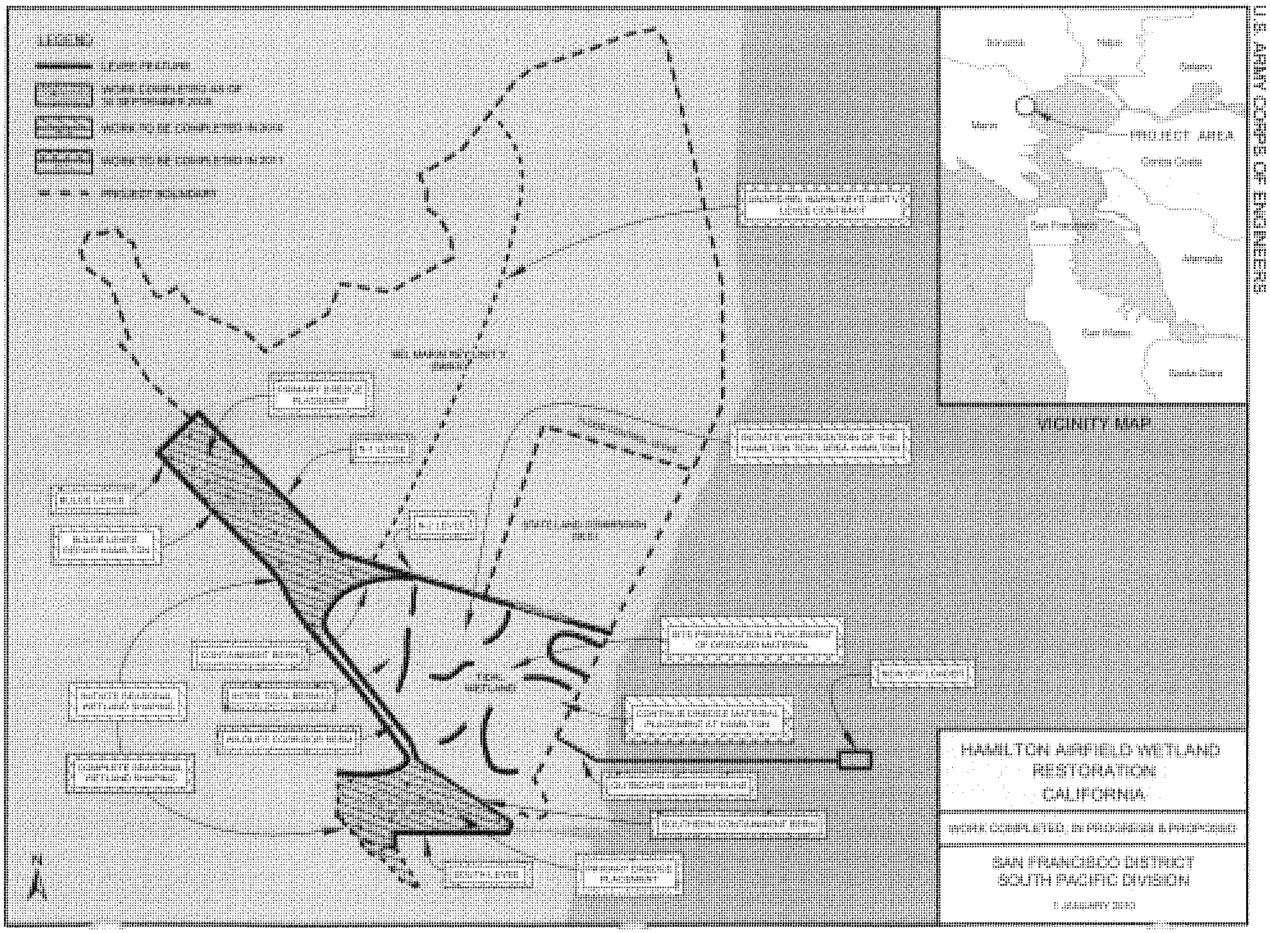
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $171,100,000 is the same as the estimate presented to Congress (FY 2010) and is based on the Bel Marin Keys Chief's Report and is consistent with the Federal cost in the 2007 WRDA. The Total project cost is in the process of being updated to account for increases in sediment placement cost, and increase utility costs. The revision will be provided in the next update.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with Environmental Protection Agency in February 1999. A General Reevaluation Report (GRR) and Supplemental Environmental Impact Report/Environmental Impact Statement for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project was completed in April 2003. The GRR and Supplemental EIS/EIR recommended the inclusion of the Bel Marin Keys Unit V parcel into Hamilton Wetland Restoration Project. The Bel Marin Keys Chief's Report was signed 19 July 2004.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001.

Army Base Realignment And Closure (BRAC) transfer of the Hamilton Airfield parcel to the State of California occurred in September 2003. However, BRAC still needs to provide either a pump or gravity diversion flow in order not to flood the access road to the Hamilton construction site.

Key Milestones:
Oakland O&M placement contract: June 2011
Richmond O&M placement contract: June 2011
Bel Marin Keys Levee Plans and Specs: Nov 2010
Bel Marin Keys Levee Construction: March 2011


U.S. ARMY CORPS OF ENGINEERS
LEGEND
LEVEE FEATURE
WORK COMPLETED AS OF 30 SEPTEMBER 2009
WORK TO BE COMPLETED IN 2010
WORK TO BE COMPLETED IN 2011
PROJECT BOUNDARY
Sonoma
Napa
Solano
Marin
PROJECT AREA
Contra Costa
San Francisco
Alameda
San Mateo
Santa Clara
VICINITY MAP
HAMILTON AIRFIELD WETLAND
RESTORATION
CALIFORNIA
WORK COMPLETED, IN PROGRESS & PROPOSED
SAN FRANCISCO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2010
N

APPROPRIATION TITLE: Construction - Environmental Restoration

PROJECT: Napa River, Salt Marsh Restoration, CA (Continuing)

LOCATION: Project is located in the northern portion of San Francisco Bay, approximately 45 miles north of San Francisco, California, adjacent to the lower reach of the Napa River in the counties of Napa, Solano, and Sonoma.

DESCRIPTION: The Napa River, Salt Marsh Wetlands originally encompassed 25,000 acres, but agriculture and development have reduced them to thirty-six percent of their former extent. In 1994 the Cargill Salt Company ceased production of salt and sold over 9,800 acres of lands in the study area to the State of California. The land is now managed by the California Department of Fish and Game (DFG). Project will restore wetlands through combination of water control structures and breaching existing berms. Construction of a recycled wastewater pipeline will provide fresh water to assist in desalinization of the high-salinity ponds.

AUTHORIZATION: Water Resources Development Act 2007

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: As required, both cost effectiveness and an incremental cost analysis were performed in order to evaluate the efficiency of restoration alternatives, and to help in the identification of the National Ecosystem Restoration Plan (NER). A CE/IC analysis was completed in the feasibility study. The Incremental Cost Analysis (ICA) analyzes provided the cost-efficiency of the alternatives in achieving the Planning Objective of ecosystem restoration, with benefits quantified from the HEP analysis. Once habitat fates were selected for each pond (taking into account the results of the habitat-fate cost-effectiveness analysis and other pond or tidal marsh status) the Final CE/ICA on the alternative plans was selected. The alternative plans are comprised of combinations of pond groupings: Pond 4, 5, 6, and 6A; and Ponds 7, 7A, and 8. Pond benefits were added to determine the total habitat benefits for each group.

INITIAL BENEFIT - COST RATIO: The benefits were determined using a modified Habitat Evaluation Procedure (HEP) analysis and are presented in non-monetary terms (Habitat Units, or HUs).

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits of wetland habitat restoration.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
Estimated Federal Cost		$ 35,809,800	
Estimated Non-Federal Cost		$ 19,282,200	
Cash Contribution	$3,962,200		
Other Costs (includes LERRDs and WRDA 2007 in-kind contribution credits)	$15,320,000		
Total Estimated Project Cost		$55,092,000	
Allocation to 30 September 2007		$ 0	
Allocation for FY 2008		0	
Allocation for FY 2009		0	
Conference Allowance for FY 2010		100,000	
Allocation for FY 2010		100,000	
Allocation through FY 2010		100,000	0
Allocation Requested for FY 2011		12,000,000	10
Programmed Balance to Complete after FY 2011		$ 23,709,800	
Unprogrammed Balance to Complete after FY 2011		0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire project	1	2020

PHYSICAL DATA
Restoration of seven salt marsh wetlands; breach existing berms; construct water control features; Construct recycled wastewater pipeline.

Division: South Pacific District: San Francisco Napa River, Salt Marsh Restoration, California
SPD-93

JUSTIFICATION: Human impacts have destroyed most of the original wetlands in the San Francisco Bay area. The degradation of fish and wildlife resources associated with the loss of these historic wetlands around San Francisco Bay has resulted in several species being listed as threatened or endangered. Over 90% San Francisco tidal wetlands have been lost since early 1900s. The degradation of fish and wildlife resources associated with the loss of the historic wetland around San Francisco Bay has resulted in several species being listed as threatened or endangered.

FISCAL YEAR 2010: The current amount of $100,000 is being applied as follows: Continue Planning, Engineering and Design

FISCAL YEAR 2011: The requested amount of $12,000,000 will be applied as follows:

Initiate construction of Ponds 7, 7A and 8	$ 11,200,000
Planning Engineering and Design	300,000
Construction Management	500,000
Total	$ 12,000,000

Division: South Pacific District: San Francisco Napa River, Salt Marsh Restoration, California

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 9,600,000	N/A
WRDA 2007 Creditable in-kind contributions	$ 5,720,000	N/A
Pay 7.2 percent of construction costs allocated to fish and wildlife restoration in cash to bring the non-Federal share of project costs to 35 percent in accordance with the Water Resources Development Act of 1986.	$ 3,962,200	N/A
Total Non-Federal Costs	$19,282,200	N/A

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California Department of Fish and Game (CaDFG), the local sponsor for the construction phase, support the project. The California State Coastal Conservancy (SCC) was the non-federal sponsor during the development of the Feasibility Report. SCC requested a PED cost-share agreement deviation that would limit the total cost of PED. The Assistant Secretary of the Army for Civil Works (ASA(CW)) denied the request and the PED Agreement was never signed. The Project Partnership Agreement (PPA) is scheduled to be signed in April of 2010.

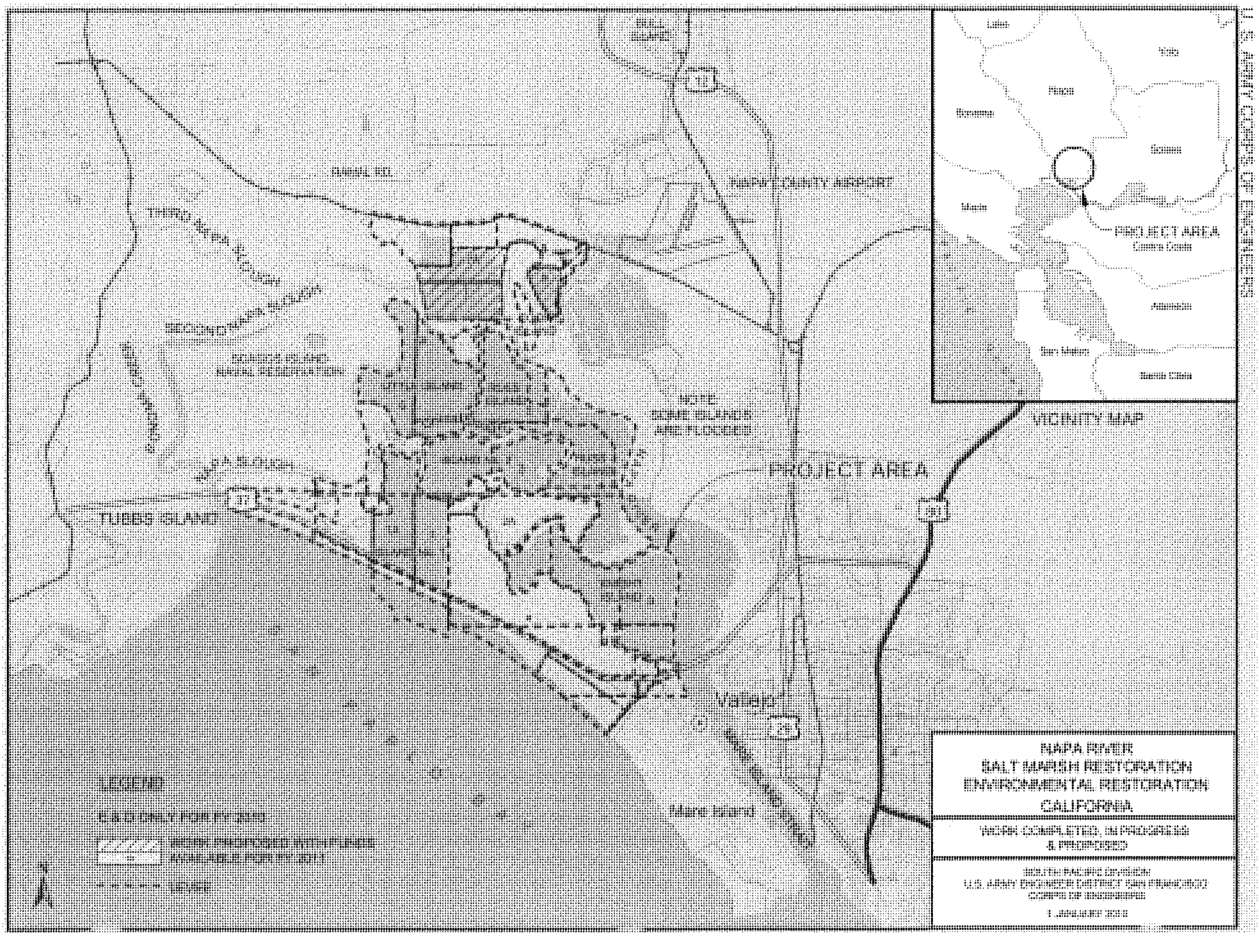
The current non-Federal cost estimate is $19,282,200. The non-Federal sponsor has indicated it is financially capable and willing to contribute the non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $35,809,800 is a reduction of $51,690,200 from the latest estimate ($87,500,000) presented to Congress (FY 2010). This reduction accounts for exclusion of project costs not compliant with Corps policy (See Other Information).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Environmental Impact Statement/Environmental Impact Report completed in 2004 and the Record of Decision signed 17 Nov 2005.

OTHER INFORMATION: The final Feasibility Report, completed in June 2004, recommended seven of the twelve salt ponds be restored to salt marsh wetlands, Ponds 4, 5, 6, 6A, 7, 7A and 8. The Chief's report was signed in December 2004. OMB clearance was provided in December 2005. Design and construction of Ponds 1, 1A, 2, 3, 4, and 5 are complete. The non-Federal sponsor constructed Ponds 4 and 5 and completed 90% design drawings, specification, and estimate for Ponds 6-8. Water Resource Development Act (WRDA) 2007 authorized crediting the non-Federal sponsor for work completed on the approved project before a PPA is signed, as identified above.

The total project authorization in WRDA 2007 is for $134,500,000 with an estimated Federal cost of $87,500,000 and an estimate non-Federal cost of $47,000,000. Although included in the authorization, non-policy compliant components to restore or enhance Salt Ponds 1, 1A, 2 and 3, and construction of a recycled water pipeline extending from the Sonoma Valley County Sanitation District Waste Water Treatment Plant and the Napa Sanitation District Waste Water Treatment Plant to the project are excluded from project costs in this justification document. The Corps will construct these features if funded and directed to do so by Congress.


U.S. ARMY CORPS OF ENGINEERS
Lake
Yolo
Napa
Sonoma
Solano
Marin
PROJECT AREA
Contra Costa
Alameda
San Mateo
Santa Clara
VICINITY MAP
NAPA COUNTY AIRPORT
THIRD NAPA SLOUGH
SECOND NAPA SLOUGH
SKAGGS ISLAND NAVAL RESERVATION
NOTE:
SOME ISLANDS
ARE FLOODED
PROJECT AREA
NAPA SLOUGH
TUBBS ISLAND
37
29
80
Vallejo
Mare Island
LEGEND
E & D ONLY FOR FY 2010
WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2011
LEVEE
NAPA RIVER
SALT MARSH RESTORATION
ENVIRONMENTAL RESTORATION
CALIFORNIA
WORK COMPLETED, IN PROGRESS
& PROPOSED
SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS
1 JANUARY 2010

OPERATION AND MAINTENANCE

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Abiquiu Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1948 , 1950, 196 0. Energy and Water Development appropriation bill 2003 for the installation of the Emergency Gates.

LOCATION AND DESCRIPTION: Abiquiu Dam is located in Rio Arriba County, approximately 6 miles west of the town of Abiquiu, 32 miles upstream from the confluence of the Rio Chama and the Rio Grande and approximately 120 miles north of Albuquerque, New Mexico.

RECOVERY ACT ALLOCATIONS TO DATE: $2,572,513
CONFERENCE AMOUNT FOR FY 2010: $3,141,000
BUDGET FOR FY 2011: M: $1,908,000 **O**: $983,000 **T**: $2,891,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,362,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $303,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements and re-opening park(s) to accommodate visitation.

HYDRO: N/A

ES: $226,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification 3, which will require out-year funding to help reduce the risk at the project with regard to public safety. Aquatic Invasive Species is a new mission requirement that will require additional funding in the out-years,

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Alamo Lake Dam, AZ

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Located 25 miles North of Wenden, AZ and 120 miles NW of Phoenix, AZ The project elements being operated and maintained consist of an earth fill Dam, Outlet works, Spillway, service roads, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: $ 1,412,873
CONFERENCE FOR FY 2010: T: $ 1,465,000
BUDGET FOR FY 2011: M: $842,000 **O**: $2,177,000 **T**: $3,019,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,909,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reservoir operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

REC: $42,000 – funding provides for routine operations of recreation facilities.

HYDRO: N/A

ES: $68,000 – funding provides for labor and travel funds for cultural staff to update the compliance plan which is needed for the cultural/historic resources here as well as updated information on cultural resources status.

WS: N/A

OTHER INFORMATION: Ecologist is coordinating with United States Fish and Wildlife Service, lessee and stakeholders on the Bill Williams River which is regulated by Alamo Dam. Study was initiated FY 09 to determine a plan for re-operation to benefit downstream habitat. Study will be completed in FY10.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Black Butte Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Stony Creek, a tributary of the Sacramento River, about 9 miles west of the town of Orland, California and comprises an earth fill dam, maximum height of 140-feet, six dikes, an ungated spillway, creating a reservoir with a gross storage capacity of 160,000-acre-feet. The project is located in Glenn and Tehama counties.

RECOVERY ACT ALLOCATIONS TO DATE: $1,611,575
CONFERENCE AMOUNT FOR FY2010: $2,123,000
BUDGET FOR FY2011: M: $353,000 **O**: $2,014,000 **T**: $2,367,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,243,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $961,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $163,000 – Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Buchanan Dam – H.V. Eastman Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project consists of an earthfill dam on the Chowchilla River, about 16 miles NE of the City of Chowchilla, CA, creating a reservoir with gross storage capacity of 150,000-acre-feet for flood control, irrigation, recreation, and other purposes. The project also includes about 2 miles of channel improvement work and levee construction on Ash and Berenda Sloughs, tributary channels of the river. The project is located in Madera and Mariposa Counties.

RECOVERY ACT ALLOCATIONS TO DATE: $2,878,256
CONFERENCE AMOUNT FOR FY2010: $1,940,000
BUDGET FOR FY2011: **M**: $308,000 **O**: $1,811,000 **T**: $2,119,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,040,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $868,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $211,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Channel Islands Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1954 (House Doc. 362, 83rd Congress, 2nd session)

LOCATION AND DESCRIPTION: Located in Ventura County, 65 miles NW of the City of Los Angeles. The project consists of an Entrance Channel, sand trap, detached breakwater, two Jetties, and Basins. The harbor was designed to trap sand and bypass it to the down coast beaches at a frequency of every other year. Based on WRDA 1996, the project is to maintain a littoral sediment balance of 1,400,000 cubic meters bi-annually.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $0
BUDGET FOR FY 2011: **M**: $4,600,000 **O**: $0 **T**: $4,600,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,600,000 provides for routine maintenance of navigation channels and mitigates for downcoast shoreline erosion. These funds will provide for critical routine maintenance dredging (removal of sediment from Entrance and Sand Traps where large amounts of material accumulate).

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The harbor is a "critical harbor of refuge" and the U.S. Coast Guard is stationed in the harbor.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Cochiti Lake, New Mexico

AUTHORIZATION: Flood Control Act of 1960 (P.L. 86-645), supplemental authorization PL 88-293 and the 1976 Water Resources Development Act (PL 94-587).

LOCATION AND DESCRIPTION: Cochiti Lake is located in Sandoval County, on the Pueblo de Cochiti lands approximately 50 river miles north of Albuquerque, New Mexico. The dam is located at river mile 340 on the Rio Grande.

RECOVERY ACT ALLOCATIONS TO DATE: $4,987,084
CONFERENCE AMOUNT FOR FY 2010: $6,534,000
BUDGET FOR FY 2011: M: $1,133,000 **O**: $2,413,000 **T**: $3,546,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,782,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $558,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

HYDRO: N/A

ES: $206,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: Funding for on-going Endangered Species Act Biological Opinion related work for the Cochiti Baseline has been provided. Cochiti Lake has an opportunity to provide significant water management benefits for the middle Rio Grande valley. Realizing this opportunity will require changes to operations currently constrained by downstream conditions. Since changes will also impact Pueblo de Cochiti resources and interests, they must be addressed and closely coordinated with the Pueblo. Aquatic Invasive Species is a new mission requirement that will require additional funding in the out-years.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Conchas Lake, New Mexico

AUTHORIZATION: Emergency Relief Act of 1935, P.L. 74-738, Flood Control Act of 1936 and amended by the Flood Control Act of 1938

LOCATION AND DESCRIPTION: Conchas Dam and Reservoir is located in San Miguel County, New Mexico on the Canadian River 743 miles upstream from the mouth of the Canadian and Arkansas Rivers and approximately 34 miles NW of Tucumcari, New Mexico. Conchas Dam and Reservoir drainage area is 7,409 square miles.

RECOVERY ACT ALLOCATIONS TO DATE: $1,892,493
CONFERENCE AMOUNT FOR FY2010: $1,707,000
BUDGET FOR FY2011: **M**: $716,000 **O**: $1,351,000 **T**: $2,067,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,813,000 – funding provides for routine operations and maintenance for flood risk management; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, encroachment damage, and providing for increased efficiency and lower future repair costs.

REC: $138,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYDRO: N/A

ES: $116,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: There have been on-going discussions for several years with the local community and New Mexico State Parks representatives regarding the need to rehabilitate and modernize the Southside Recreation Area and Conchas Lodge... Aquatic Invasive Species is a new mission requirement that will require additional funding in the out-years.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Coyote Valley Dam, Lake Mendocino, CA

AUTHORIZATION: Flood Control Act of 1950; Pub. L. No. 81-516, § 204, 64 Stat. 163

LOCATION AND DESCRIPTION: Lake Mendocino is on the Russian River about 5 miles northeast of Ukiah in Mendocino County. The original purpose was flood risk management and water supply, but recreation was added after the original authorization. The project also provides environmental outputs.

RECOVERY ACT ALLOCATIONS TO DATE: $11,013,521
CONFERENCE AMOUNT FOR FY 2010: $3,639,000
BUDGET FOR FY 2011: **M**: $689,000 **O**: $2,963,000 **T**: $3,652,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,442,000 – Funding provides for routine operations and maintenance for flood risk management; perform water management analysis (control and quality); environmental compliance; and water management of water control data systems. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $1,676,000 – Funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; real estate management; and environmental compliance.

HYDRO: N/A

ES: $534,000 – Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Dry Creek (Warm Springs) Lake and Channel, CA

AUTHORIZATION: Flood Control Act of 1962, Pub. L. No. 87-874, § 203, 76 Stat. 1173; Water Resources Control Act of 1974, Pub. L. No. 93-251, § 95 , 88 Stat. 12

LOCATION AND DESCRIPTION: The project is located on Dry Creek, a tributary of the Russian River about 75 miles north of San Francisco, California. The primary authorized purpose is flood risk management, recreation and water supply, but also provides environmental outputs.

RECOVERY ACT ALLOCATIONS TO DATE: $12,551,886
CONFERENCE AMOUNT FOR FY 2010: $4,884,000
BUDGET FOR FY 2011: M: $910,000 **O**: $4,921,000 **T**: $5,831,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,229,000 – Funding provides for routine operations and maintenance for flood risk management; perform water management analysis (control and quality); environmental compliance; and water management of water control data systems. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $2,200,000 – Funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; real estate management; and environmental compliance.

HYDRO: N/A

ES: $1,402,000 – Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Farmington Dam, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on Littlejohn Creek about 3½ miles upstream from Farmington and about 18 miles east of Stockton, and consists of a 56-foot-high earth-fill dam and an ungated saddle spillway, creating a reservoir with a gross storage capacity of 52,000 acre feet. The project is located in San Joaquin and Stanislaus counties.

RECOVERY ACT ALLOCATIONS TO DATE: $440,025
CONFERENCE AMOUNT FOR FY2010: $457,000
BUDGET FOR FY2011: **M**: $70,000 **O**: $380,000 **T**: $450,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $450,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Galisteo Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1960 (P.L. 86-645)

LOCATION AND DESCRIPTION: Galisteo Dam is located in Santa Fe County, approximately 20 miles southwest of Santa Fe, New Mexico on Galisteo Creek 11.8 miles upstream from the confluence of the Rio Grande and approximately 40 miles north of Albuquerque, New Mexico.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $562,000
BUDGET FOR FY 2011: M: $363,000 **O**: $564,000 **T**: $927,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $850,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $51,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

HYDRO: N/A

ES: $26,000 – funding provides for routine operations and maintenance for environmental stewardship.

WS: N/A

OTHER INFORMATION: District staff completed a disposal report in 2008 for the purpose of transferring 310 acres of excess land downstream of Galisteo Dam to the Santo Domingo Pueblo. Formal acceptance of the land is pending in Bureau of India Affairs headquarters. Salt Cedar Removal will require on going eradication efforts for total eradication and area restoration with native vegetation.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Hidden Dam - Hensley Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project consists of a 163-feet-high earth-fill dam on the Fresno River about 15 miles NE of Madera, with a reservoir with gross storage capacity of 90,500-acre-feet. The project is located in Madera County.

RECOVERY ACT ALLOCATIONS TO DATE: $1,689,355
CONFERENCE AMOUNT FOR FY2010: $2,062,000
BUDGET FOR FY2011: M: $172,000 **O**: $1,991,000 **T**: $2,163,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,239,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation, and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $841,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A.

ES: $83,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Humboldt Harbor and Bay, CA

AUTHORIZATION: River and Harbor Act of 1910, Pub. L. No. 61-264, 36 Stat. 630, 661; River and Harbor Act of 1930, Pub. L. No. 71-520, 46 Stat. 918, 932; River and Harbor Act of 1935, Pub. L. No. 74-409, 49 Stat. 1028, 1038; River and Harbor Act of 1937, 75 P.L. 392, 50 Stat. 844, 849; River and Harbor Act of 1968, Pub. L. No. 90-483, § 101, 82 Stat. 731, 732.

LOCATION AND DESCRIPTION: This project is located at Eureka, California, about 280 miles north of San Francisco. Project operations and maintenance provides for annual inspection and periodic repair of the North and South jetties, and annual maintenance dredging of the Bar and Entrance Channels; the North Bay Channel, the Samoa Channel, including the Turning Basin; the Eureka Channel; and the Fields Landing Channel. The permanently designated Humboldt Open Ocean Disposal Site is utilized for disposal of all dredged materials.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,860,000
BUDGET FOR FY 2011: **M**: $5,848,000 **O**: $0 **T**: $5,848,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 5,848,000 - Funding provides for annual maintenance dredging of the Bar and Entrance Channel by Government Dredge ESSAYONS and the Interior Channels by Government Dredge YAQUINA. Humboldt Harbor is the only Deep Draft harbor in California north of San Francisco.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Storm activity and wave action cause sediment to shoal in the Entrance Channel and create extremely hazardous conditions. Annual dredging of the Harbor is critical. Without maintenance dredging, the Harbor will experience shoaling at the Entrance, creating a hazard to navigation. Humboldt is the only deep draft Harbor of Refuge between San Francisco Bay and Coos Bay, Oregon.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Isabella Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The dam is located about 50 miles NE of Bakersfield, near the confluence of the north and south forks of the Kern River; the auxiliary dam is about ½ mile east of the main dam. Project comprises a 185-foot-high earth fill dam, an ungated concrete spillway, and a 100-foot-high earth fill auxiliary dam, creating a reservoir with a gross storage capacity of 570,000-acre-feet. The project is located in Kern County.

RECOVERY ACT ALLOCATIONS TO DATE: $135,901
CONFERENCE AMOUNT FOR FY2010: $1,712,000
BUDGET FOR FY2011: **M**: $434,000 **O**: $1,522,000 **T**: $1,956,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,606,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: N/A

HYDRO: N/A

ES: $350,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed. A dam safety investigation is currently underway to determine the appropriate remediation efforts.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Jemez Canyon Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1948 (P.L. 80-858) and Flood Control Act of 1950 (P.L. 81-516).

LOCATION AND DESCRIPTION: Jemez Canyon Dam is located in Sandoval County, approximately 5 miles northwest of Bernalillo, New Mexico on the Rio Jemez 2.8 miles upstream from the confluence of the Rio Grande and approximately 35 miles northwest of Albuquerque, New Mexico. Jemez Canyon Dam drainage area is 1,034 square miles.

RECOVERY ACT ALLOCATIONS TO DATE: $969,547
CONFERENCE AMOUNT FOR FY 2010: $718,000
BUDGET FOR FY 2011: **M**: $557,000 **O**: $841,000 **T**: $1,398,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,298,000 – funding provides for routine operations and maintenance for flood risk management. These funds would improve flood risk management performance by reducing the risk of failure of the dam, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $50,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements.

HYDRO: N/A

ES: $50,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: Jemez Canyon Dam has an opportunity to provide significant water and sediment management benefits for the middle Rio Grande valley. Realizing this opportunity will require changes to operations. Such changes have occurred in the past and have impacted Santa Ana Pueblo resources and interests requiring mitigation. Impacts from future operational changes will also have to be resolved and closely coordinated with the Santa Ana Pueblo. The Pueblo's ancestral Tamaya village has drainage problems, attributable to Corps past construction of an encircling "ring levee" for high flood storage protection, that require repair.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: John Martin Reservoir, CO

AUTHORIZATION: Flood Control Act of 1936 (P.L. 76-868) as Caddoa Reservoir renamed in 1940.

LOCATION AND DESCRIPTION: John Martin Reservoir is located in Bent County, Colorado about midway between Lamar and Las Animas on the Arkansas River at river mile 1159 approximately 58 miles upstream from the Colorado – Kansas state line. John Martin Reservoir drainage is 18,130 square miles, has a concrete section, an earth section and two earth wing dikes.

RECOVERY ACT ALLOCATIONS TO DATE: $4,299,745
CONFERENCE AMOUNT FOR FY2010: $2,427,000
BUDGET FOR FY2011: M: $1,076,000 **O**: $1,865,000 **T**: $2,941,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,500,000 – funding provides for routine operations and maintenance for flood risk management; and access bridge seismic restraint for dam safety. The funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $147,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance and water management of water control data systems.

HYDRO: N/A

ES: $294,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated Dam Safety Action Classification 3 which will require out-year funding to help reduce the risk at the project with regard to public safety. The downstream stilling basin has not been inspected since the dam was originally built about 67 years ago. Designs, plans and specifications are nearly complete to dewater and inspect the basin. Aquatic Invasive Species is a new mission requirement that will require additional funding in the out-years.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Los Angeles County Drainage Area, CA

AUTHORIZATION: Flood Control Act of 1936 (as amended 1937, 1941, 1950)

LOCATION AND DESCRIPTION: The Project is located in the County of Los Angeles, California. The Project includes routine operation and maintenance of five Dams and about 34 miles of 517 total miles of flood control channels within Los Angeles County. Baseline hydraulic and hydrologic modeling and surveys are also being conducted to enhance operations and maintenance efforts.

RECOVERY ACT ALLOCATIONS TO DATE: $8,090,046
CONFERENCE FOR FY 2010: **T**: $ 4,369,000
BUDGET FOR FY 2011: **M**: $2,649,000 **O**: $4,386,000 **T**: $7,035,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $6,698,000 – funding provides for maintenance of five dams and appurtenant structures and flood control channels, entry permits, encroachment and outgranting and operation of dams; service facilities and grounds, utilities, water control and reserve operations, hydrographic instrumentation, maintenance of permanent operating equipment, compliance and utilization inspections, and formal periodic inspections for Hansen and Sepulveda Dams and monitoring.

REC: $160,000 – funding provides for routine operation of recreation facilities.

HYDRO: N/A

ES: $177,000 – funding provides for in-house and contract costs for cultural resources management plans for 5 flood control basins and 2 rivers (Sepulveda, Hansen, Lopez, Santa Fe, Haines Canyon and Los Angeles and San Gabriel Rivers) by providing cultural staff, ecological surveys, and fencing at the projects. Work consists of cultural resources management plans at Hansen and Sepulveda Basins, cultural reconnaissance at Whittier Narrows basin (former site of original San Gabriel Mission); excavation/report for Hansen Dam historical site, for National Historic Register evaluation, fencing at Haines Canyon to reduce trespassing by unapproved recreationists; and for endangered species surveys in the Los Angeles County Drainage areas.

WS: N/A

OTHER INFORMATION: Due to the Station Wild Fire above Haines Canyon destroying vegetation, heavy debris flows were experienced and some sediment was removed during the first quarter of FY10. The district is closely monitoring this situation, and should future storm events affect the basins capacity, additional funds may be needed.

Division: South Pacific District: Los Angeles Project Name: Los Angeles County Drainage Area, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Marina del Rey, CA

AUTHORIZATION: River and Harbor Act of 1954

LOCATION AND DESCRIPTION: Marina del Rey is the largest man-made harbor in the United States with nearly six thousand boat slips. The harbor is used for recreation and fishing purposes with a Coast Guard cutter permanently stationed in the harbor. The project maintenance consists of jetties, entrance channel, main channel, and breakwater.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $1,406,000
BUDGET FOR FY 2011: **M**: $2,050,000 **O**: $0 **T**: $2,.050,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,050,000 Funds are being used to develop Plans and Specifications and an Environmental Assessment for a comprehensive dredging project to be executed upon full availability of funds.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Sediments from the South Entrance are normally deemed as unsuitable for ocean or beach disposal due to contamination. In the past, sediments dredged from the South Entrance were placed in a confined aquatic disposal site or in port-fill sites. The Coast Guard maintains a cutter in Marina del Rey and the Harbor serves as the key rescue support for the Los Angeles International Airport. There are commercial fishing and tourist interests in the Harbor. Without maintenance, the harbor will experience severe difficulties in navigation and the entrance channel may be closed due to a hazard to navigation. At present there is not enough funding available to award and execute a dredging project. Estimates range from $3.5 million (for a basic dredging project to remove available clean sediments from the entrance) to approximately $17 million (to remove all clean and contaminated materials from the harbor). This range covers the previously reported dredging cost estimate of $9 million for a mix of clean and contaminated sediments.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Martis Creek Lake, NV & CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project consists of a 113-foot-high earth-fill dam on Martis Creek (a tributary of Truckee River), about 32 miles southwest of Reno, creating a reservoir with a gross storage capacity of about 20,000-acre-feet. The project is located in Nevada and Placer counties in California and Washoe County in Nevada.

RECOVERY ACT ALLOCATIONS TO DATE: $650,095
CONFERENCE AMOUNT FOR FY2010: $1,133,000
BUDGET FOR FY2011: **M**: 139,000 **O**: $1,031,000 **T**: $1,170,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $950,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $210,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, “Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects”.

HYDRO: N/A

ES: $10,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: Project is currently not fully able to provide the benefits for which it was designed and constructed because of seepage problems and seismic concerns. A dam safety investigation is currently underway to determine the appropriate remediation efforts.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Merced County Streams, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project consists of the following flood control improvements:

1) Five flood retention dams:
    - Mariposa, 88-feet-high (15,000-acre-feet), 18 miles east of Merced.
    - Owens 75-feet-high (3,600-acre-feet), 16 miles east of Merced.
    - Bear, 92-feet-high (7,700-acre-feet), 16 miles east of Merced.
    - Burns, 53-feet-high (7,000-acre-feet), 13 miles NE of Merced.
    - Castle, 40-feet-high (6,400-acre-feet), 6 miles NW of Merced.
2) Black Rascal and Owens Diversion Canals; and
3) Channel improvements on various streams in the vicinity of Merced.

No recreation facilities are included in the project. The project is located in Mariposa County.

RECOVERY ACT ALLOCATIONS TO DATE: 0
CONFERENCE AMOUNT FOR FY2010: $429,000
BUDGET FOR FY2011: **M**: $ 41,000 **O**: $360,000 **T**: $401,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $401,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data System modifications.

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Middle Rio Grande Endangered Species Collaborative Program, NM

AUTHORIZATION: P.L.109-103; 119 Stat. 2256 Section 121 of the Energy and Water Development Appropriations Act, 2006 and as amended by P.L. 110-161 Sec 109 of the Energy and Water Development & Related Agencies Appropriations Act 2008

LOCATION AND DESCRIPTION: This project is a multi-stakeholder partnership to protect and improve the status of endangered species (Rio Grande silvery minnow and southwestern willow flycatcher) while simultaneously protecting existing and future regional water uses. Authority includes the headwaters of the Rio Chama watershed and the Rio Grande from the New Mexico-Colorado state line downstream to the elevation of the spillway crest of the Elephant Butte Reservoir.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,994,000
BUDGET FOR FY 2011: M: $0 **O**: $2,500,000 **T**: $2,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $2,500,000 –The purpose is to fulfill requirements set forth by the 2003 Biological Opinion on the Bureau of Reclamation's Water and River Maintenance Operations, Army Corps of Engineers' Flood Control Operations, and Non-Federal Actions (2003 Biological Opinion) and the Middle Rio Grande Endangered Species Collaborative Program Long Term Plan by carrying out and funding the necessary planning studies, watershed surveys and assessments, or technical studies at 100 percent Federal expense.

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: This program facilitates Corps compliance under Section 7 of the Endangered Species Act. Identified program goals include alleviating jeopardy to the listed species in the Program area and to develop adaptive management tools to support a sustainable Biological Opinion.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Mojave River Dam, CA

AUTHORIZATION: Flood Control Act of 1960

LOCATION AND DESCRIPTION: The project is located San Bernardino County, approximately 100 miles East of Los Angeles, California. The project elements being operated and maintained consist of an earth fill Dam, Saddle Dike, Outlet works, Spillway, service roads, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $ 274,000
BUDGET FOR FY 2011: **M**: $191,000 **O**: $ 331,000 **T**: $522,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $468,000 - funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance and utilization inspections, and formal periodic inspections and monitoring.

REC: $ 27,000 - funding provides for routine operations of recreation facilities.

HYDRO: N/A

ES: $27,000 – funding provides for partial contract cost for District aerial photo and Globle Information Service/analysis for Level I inventory and Master Plan preparation. Listed aquatic and avian species are found here.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Morro Bay Harbor, CA

AUTHORIZATION: River and Harbor Act of 1945

LOCATION AND DESCRIPTION: The Harbor is located half way between Los Angeles and San Francisco in San Luis Obispo County. The project consists of the Entrance Channel, the Main Channel, the Navy Channel, the Morro Channel, and the Sand Trap.

RECOVERY ACT ALLOCATIONS TO DATE: $8,884,514
CONFERENCE FOR FY 2010: T: $3,136,000
BUDGET FOR FY 2011: M: $1,590,000 **O**: $0 **T**: $1,590,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,590,000 – Funding provides for critical annual maintenance dredging to assure safe navigation. These funds would be used to perform critical minimum maintenance dredging in the Entrance Channel.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Entrance Channel is critical area for the Harbor. Since this area is just outside of the Breakwater's protection, it has a fast accumulation rate. Dredging in this area is normally performed by the Corps's dredge, Yaquina. The Coast Guard maintains a cutter in the Harbor and there are commercial fishing and tourist operations.

Division: South Pacific District: Los Angeles Project Name: Morro Bay Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Hogan Lake, CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: The project is located on the Calaveras River, about 28 miles NE of Stockton, and comprises a rock-fill dam with an impervious earth core and a maximum height of 200-feet together with four dikes, with a maximum height of 18-feet, and a gated spillway to create a reservoir with a gross storage capacity of 325,000-acre-feet. The project is located in Calaveras County.

RECOVERY ACT ALLOCATIONS TO DATE: $2,079,800
CONFERENCE AMOUNT FOR FY2010: $2,390,000
BUDGET FOR FY2011: **M**: $ 319,000 **O**: $2,157,000 **T**: $2,476,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,160,000 – Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications. Funding also includes in-depth safety inspection of bridge essential to its ongoing safe operation.

REC: $1,148,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $168,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: New Melones Lake (Downstream Channel), CA

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Project extends along the Stanislaus River from Goodwin Dam to its confluence with the San Joaquin River. The project provides recreationists' access to the Lower Stanislaus River. The project is located in Calaveras, San Joaquin, Stanislaus, and Tuolumne counties.

RECOVERY ACT ALLOCATIONS TO DATE: $1,597,920
CONFERENCE AMOUNT FOR FY2010: $1,804,000
BUDGET FOR FY2011: **M**: $489,000 **O**: $1,440,000 **T**: $1,929,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $266,000 - Critical funding needed to perform below minimum channel operation and maintenance to prevent failure and maintain integrity of Flood Risk Management; reducing inspections and engineering consultations. Funding also includes in-depth safety inspection of bridge essential to its ongoing safe operation.

REC: $1,286,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $377,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Newport Bay Harbor, CA

AUTHORIZATION: River and Harbor Act of 1937, 1945

LOCATION AND DESCRIPTION: Located in Newport Beach, Orange County, CA, project elements consist of an entrance channel, main channel, upper channel, turning basin, anchorage area, east and west jetties.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $1,692,000
BUDGET FOR FY 2011: **M**: $1,280,000 **O**: $0 **T**: $1,280,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,280,000 – Funds are being used to develop Plans and Specifications and an Environmental Assessment for a comprehensive dredging project to be executed upon full availability of funds

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Critical maintenance dredging is required within the harbor to assure safe navigation. The US Coast Guard is stationed in Newport Harbor making it a critical harbor of refuge. .Although the project received funding in FY10, the amount of funding provided is not adequate to enter into a dredging contract. Unless funds are reprogrammed from another source, the project will carry-over a significant amount of funds to FY11 and will have to be further carried over until such time as the entire amount of needed funds has accumulated.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oakland Harbor, CA

AUTHORIZATION: R & H Act of 1910, Pub. L. No. 60-317, 35 Stat. 815,823 (1909); R & H Act of 1917, Pub. L. No. 64-108, 39 Stat. 391,404 (1916), R & H Act of 1922, Pub. L. 67-362, 42 Stat. 1038, 1040 (1922); R & H Act of 1928, Pub. L. No. 69-560, 44 Stat. 1038, 1040 (1922); R & H Act of 1930 Pub. L. No. 46 Stat. 918, 931 (1930); R & H Act of 1945, Pub. L. No. 79-14, 59 Stat. 10, 13 (1945); R & H Act of 1962, Pub. L. No. 87-874 § 101, 76 Stat. 1173, 1176 (1962); WRDA of 1986, Pub. L. No. 99-662 § 202 (a), 100 Stat. 4082 (1986); WRDA of 1999, Pub. L. No. 106-53 § 101 (a) (7), 113 Stat. 269,275 (1999).

LOCATION AND DESCRIPTION: Oakland Harbor is located in Alameda County, California. The project provides for inspection and maintenance of parallel rubble-mound jetties forming the entrance to Oakland Inner Harbor, and annual maintenance dredging of the Oakland Inner and Outer Harbors to -50 feet Mean Lower Low Water. It also provides for reimbursement to Alameda County for operations and maintenance of the Fruitvale Avenue Railroad Bridge.

RECOVERY ACT ALLOCATIONS TO DATE: $7,086,724
CONFERENCE AMOUNT FOR FY 2010: $9,154,000
BUDGET FOR FY 2011: **M**: $7,500,000 **O**: $0 **T**: $7,500,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 7,500,000 - Funding provides for annual contract maintenance dredging of the Inner and Outer Harbor Channels. The Port of Oakland is the major container facility in San Francisco Bay and is a National Strategic Port.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Funds will be used for maintenance dredging of the Inner and Outer Harbors; management of the Oakland Inner Harbor Tidal Canal; operation and maintenance of the railroad bridge; environmental clean-up of the Nelson Marine site; and monitoring at the San Francisco Deep Ocean Disposal Site and Sonoma Baylands. Placement of dredged material from Oakland has contributed substantially to the Hamilton Wetland Restoration Project.

Division: South Pacific District: San Francisco Project Name: Oakland Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Oceanside Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1982, WRDA 1990

LOCATION AND DESCRIPTION: Located in northern San Diego County, CA. The project provides for maintenance of the general navigation features of the Del Mar Channel, constructed by the US Navy, and of Oceanside Harbor, constructed by local interest. The features consist of five channels, one jetty and a turning basin.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $1,425,000
BUDGET FOR FY 2011: **M**: $1,520,000 **O**: $0 **T**: $1,520,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,520,000 – Funding will be used to perform critical minimum level maintenance dredging of the Approach Channel and the Entrance Channel.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Oceanside Harbor requires annual dredging and will allow dredging of the Approach Channel. Oceanside Harbor is a critical harbor of refuge along the Southern California coast and without the dredging of the Approach Channel, the Harbor will develop hazardous shoals and may close. The nearest harbors are Dana Point and Mission Bay which are 25 and 32 miles away respectively. However, neither of these are classified as critical harbors of refuge. Additionally, Marine Corps Base Camp Pendleton operates a basin within Oceanside Harbor that is used for training activities and Navy operations.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Painted Rock Dam, AZ

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The Project is located in approximately 20 miles Northwest of Gila Bend, Arizona and 120 miles Southwest of Phoenix, Arizona. The project elements being operated and maintained consist of an earth fill Dam, Saddle Dike, Outlet works, Spillway, Pilot Channel, reservoir, and a recreation area.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $ 1,254,000
BUDGET FOR FY 2011: **M**: $436,000 **O**: $1,086,000 **T**: $1,522,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,499,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

REC: N/A

HYDRO: N/A

ES: $23,000 – funding provides for salary and travel of Cultural staff for field reconnaissance and report on cultural resources.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine and Mathews Canyons Lakes, NV

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: The Dams are located approximately 100 miles North East of the city of Las Vegas, Nevada. The project consists of routine operation and maintenance of Pine Canyon Dam, Mathews Canyon Dam and appurtenances. The structures are not gated and require little maintenance. Initially placed in operation December of 1957, the project structures are in good condition.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $ 324,000
BUDGET FOR FY 2011: **M**: $146,000 **O**: $411,000 **T**: $557,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $512,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reserve operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

REC: N/A

HYDRO: N/A

ES: $45,000 – funding provides for fencing and signage, at key areas, to be erected to reduce trespassing in an area with sensitive cultural and other natural resources; travel and in-house labor to update cultural resources management/compliance and site stewardship; area of illegal grazing and also unapproved/informal recreation, in area with rich cultural resources which are at risk and whose status has not been recently reviewed.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Pine Flat Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: Pine Flat Dam is located on the Kings River, about 25 miles east of the city of Fresno, is a straight, gravity-type concrete structure, 429-feet-high, with a gate-controlled spillway in the central section, and creates a reservoir of 1,000,000-acre-feet. The project is located in Fresno County.

RECOVERY ACT ALLOCATIONS TO DATE: $753,111
CONFERENCE AMOUNT FOR FY2010: $3,042,000
BUDGET FOR FY2011: **M**: $775,000 **O**: $2,603,000 **T**: $3,378,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $2,250,000 – Funding provides for routine required dam operations and maintenance. Operations includes execution of gate operation & service, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation, and air conditioning, vegetation control, and Water Control Data System modifications. Funding also includes in-depth safety inspection of bridge essential to its ongoing safe operation.

REC: $1,098,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $30,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Richmond Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1917, Pub. L. No. 64-108; 39 Stat. 391 (1916); Rivers and Harbors Act of 1930, Pub. L. 71-520; 46 Stat. 520 (1930); Rivers and Harbors Act of 1935, Pub. L. No.74-409; 49 Stat. 1028 (1935); Rivers and Harbors Act of 1938, Pub. L. No. 75-685; 52 Stat. 802 (1938); Rivers and Harbors Act of 1945, Pub. L. No. 79-14; 59 Stat. 10 (1945); Rivers and Harbors Act of 1954, Pub.L. No. 83-870; 68 Stat. 1248 (1954).

LOCATION AND DESCRIPTION: Richmond Harbor is located in Contra Costa County, California. The project includes the Outer and Inner Harbor Channels as well as a training wall.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $9,113,000
BUDGET FOR FY 2011: M: $8,375,000 **O**: $0 **T**: $8,375,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 8,375,000 - Funding provides for annual maintenance dredging of the Inner Harbor and the Outer Harbor. The Port of Richmond is the major tanker terminal in San Francisco Bay.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The Port of Richmond accounts for over 30% of all commercial tonnage in San Francisco Bay.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River (30-Foot Channel) , CA

AUTHORIZATION: Rivers and Harbor Act 1946

LOCATION AND DESCRIPTION: The Sacramento Deep Water Ship channel extends approximately 43 miles from the Port of Sacramento to the western region of the central valley. The Sacramento District is responsible for maintaining the channel to an authorized depth of 30-feet and maintaining 33 miles of dual purpose navigation and flood protection levees. The project is located in the counties of Sacramento, Yolo, and Solano.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $3,185,000
BUDGET FOR FY2011: **M**: $3,534,000 **O**: $51,000 **T**: $3,585,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,585,000 - Maintain the ship channel to its authorized depth of 30-feet. If adequate funding is not provided, only a portion of the channel would be at authorized depth resulting in navigation safety hazards which may result in ships grounding. Draft restrictions would be imposed resulting in a loss of revenue to the Port of West Sacramento. Vessels utilizing the shipping channel not only represent the most economical means of transporting cargo, it also offers benefits of reduced air emissions and improved traffic congestions. Basic levee maintenance will be conducted to provide vehicle access during emergencies. Funding also includes Real Estate compliance inspections and out grant oversight.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Strict water quality standards set by the State have increased requirements for sampling and handling of dredge material. Shortened dredging windows due to endangered species have created problems in maintaining channels to authorized depths each year. A lack of funding, in past years, has allowed critical erosion sites along the levees to go un-repaired which leaves West Sacramento vulnerable to flooding. Tighter air quality control requirements have necessitated upgrades in dredging equipment which have increased the contract costs.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River & Tributaries (Debris Control), CA

AUTHORIZATION: Rivers and Harbors Act of 1935

LOCATION AND DESCRIPTION: Englebright & North Fork Dams are both thin wall concrete arch dams constructed by California Debris Commission to contain mining debris. Englebright is about 20 miles east of Marysville on Yuba River, and North Fork is on the North Fork of the American River about 5 miles NE of Auburn. The projects are located in the counties of Nevada and Yuba.

RECOVERY ACT ALLOCATIONS TO DATE: $478,316
CONFERENCE AMOUNT FOR FY2010: $1,627,000
BUDGET FOR FY2011: **M**: $157,000 **O**: $1,318,000 **T**: $1,475,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $532,000 – Funding provides for routine required maintenance and operations of all dam appurtenant structures including monitoring & analysis of instrumentation, data collection, real estate requirements and outgrant inspections; includes federal, state and local coordination. Operations includes: dam safety & post earth quake inspections, and emergency actions. Maintenance includes: limited critical maintenance, repairs to major equipment, limited embankment erosion repairs and control, fire suppression, security system modification, heating, ventilation and air conditioning, and vegetation control.

FRM: N/A

REC: $818,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects" for public safely and security of facilities.

HYDRO: N/A

ES: $125,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories. Funding will also support gravel and woody debris augmentation as a result of Endangered Species Act Section 7 consultation with Natural Marine Fisheries Service and in accordance with Endangered Species Act final biological opinion. This will be a permanent requirement until the 3 species are de-listed.

WS: N/A

OTHER INFORMATION: None
Division: South Pacific District: Sacramento Project Name: Sacramento River & Tributaries Debris Control, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Sacramento River Shallow Draft Channel, CA

AUTHORIZATION: Rivers and Harbor Acts, 1899, 1912, 1927, 1935

LOCATION AND DESCRIPTION: The project consists of a 10-foot channel, from Suisun Bay to Sacramento, a distance of 60 miles; 6-foot channel between Sacramento and Colusa, 85 miles; 5-foot channel between Colusa and Chico Landing, 50 miles; and such depth as practicable between Chico Landing and Red Bluff, a distance of 53 miles. The reach from Colusa to Red Bluff was deauthorized by the WRDA 1986. Project is located in the counties of Colusa, Glenn, Placer, Solano, Tehama, and Yolo.

RECOVERY ACT ALLOCATIONS TO DATE: $7,900
CONFERENCE AMOUNT FOR FY2010: $222,000
BUDGET FOR FY2011: M: $ 0 **O**: $161,000 **T**: $161,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $161,000 – Funding is required for inspections and maintenance of wing dams to ensure snags and other navigation hazards are properly cleared. Maintenance also includes replacement of the wing dam buoys. The Sacramento River is a heavily used waterway by recreational vessels. Failure to remove snags and replace wing dam buoys would result in navigation safety hazards which may result in loss of property or life, if not maintained.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Bay Delta Model, CA

AUTHORIZATION: Water Resources Development Act of 1974, Pub. L. No. 93-251, § 103, 88 Stat. 12, 16.

LOCATION AND DESCRIPTION: The San Francisco Bay-Delta Model Regional Visitor Center is located in Sausalito, California. The facility is a hydraulic to scale three dimensional model covering one and one-half acres.

RECOVERY ACT ALLOCATIONS TO DATE: $15,156,189
CONFERENCE AMOUNT FOR FY 2010: $1,062,000
BUDGET FOR FY 2011: **M**: $5,000 **O**: $1,082,000 **T**: $1,087,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: N/A

REC: $ 1,087,000 - Funding provides annual operation and maintenance of the bay-delta model. The facility currently serves over 150,000 visitors annually, 60% of them school children, fulfilling Corps Strategic Communication goals, providing public and curriculum-based school tours, special events, workshops, and seminars on the Corps' modern missions within the context of the environmental, cultural, and historical issues of the Bay Area.

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor and Bay, CA (Drift Removal)

AUTHORIZATION: River and Harbor Act of 1945, Pub. L. No. 79-14, § 3, 59 Stat. 10, 23

LOCATION AND DESCRIPTION: Drift Removal is the removal of floating hazards to navigation using Government-owned vessels. The project is based at the San Francisco District Operations Base at Richardson Bay in Sausalito, California. The drift removal fleet's areas of operation are San Francisco Bay (central, north and south), San Pablo Bay, Oakland Estuary, Petaluma River, Napa River, Mare Island Strait, Carquinez Strait, Suisun Bay and Redwood City.

RECOVERY ACT ALLOCATIONS TO DATE: $145,000
CONFERENCE AMOUNT FOR FY 2010: $2,945,000
BUDGET FOR FY 2011: **M**: $3,090,000 **O**: $0 **T**: $3,090,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,090,000 - Funding for the removal of floating hazards in navigation channels using Government-owned vessels. The drift removal operation affects the navigational safety concerns for all Bay Area Federal channels used by over 1,000 small ports and several major ports including the ports of Oakland, Richmond, Sacramento, and Stockton.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Francisco Harbor, CA

AUTHORIZATION: River and Harbor Act 1927, Pub. L. No. 69-560, 44 Stat. 1010, 1014; River and Harbor Act of 1930, Pub. L. No. 71-520, 46 Stat. 918, 934; River and Harbor Act of 1935, Pub. L. No. 74-409, 49 Stat. 1028, 1037

LOCATION AND DESCRIPTION: The project is located approximately 5 miles west of the Golden Gate Bridge in the waters leading into San Francisco Bay. The San Francisco Main Ship (Bar) Channel is the gateway to San Francisco Bay.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $3,327,000
BUDGET FOR FY 2011: M: $2,776,000 **O**: $0 **T**: $2,776,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 2,776,000 - Funding provides for annual maintenance dredging of the Main Ship (Bar) Channel by Government Dredge ESSAYONS. All commercial deep draft and national defense shipping to San Francisco Bay, Sacramento and Stockton must traverse through this project

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Over 66 million tons of waterborne commerce traversed the San Francisco Bar entrance channel in the latest year of record. With the completion of the 50 foot channel at the Port of Oakland, the continued maintenance of the 55 foot entrance channel is essential.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Joaquin River, CA

AUTHORIZATION: Rivers and Harbors Act 1876, 1927 & 1950

LOCATION AND DESCRIPTION: The Stockton Deep Water Ship Channel extends 41 miles from the Port of Stockton to Antioch, CA. The Sacramento District is responsible for maintaining both the channel to 35-feet and existing bank protection. The project is located in the counties of Contra Costa, Sacramento and San Joaquin.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $3,377,000
BUDGET FOR FY2011: **M**: $ 3,538,000 **O**: $65,000 **T**: $3,603,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: $3,603,000 – Maintain the ship channel to its authorized depth of 35-feet. If adequate funding is not provided, only a portion of the channel would be at authorized depth resulting in navigation safety hazards which may result in ships grounding. Draft restrictions would be imposed resulting in a loss of revenue to the Port of Stockton. On average 1 cargo vessel passes through the channel every other day transporting millions of tons of waterborne cargo to and from the Port of Stockton taking more than 1 million trucks off area roads annually. Funding also includes Real Estate compliance inspections and out grant oversight.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Strict water quality standards set by the State have increased requirements for sampling and handling of dredge material. Shortened dredging windows due to endangered species have created problems in maintaining channels to authorized depths each year. Tighter air quality control requirements have necessitated upgrades in dredging equipment which have increased the contract costs. A lack of funds for rock work has allowed the banks to degrade resulting in increased sedimentation in the channel. The Port has expressed concerns over fast shoaling areas which restrict the controlling depth of the channel.

Division: South Pacific District: Sacramento Project Name: San Joaquin River, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: San Pablo Bay and Mare Island Strait, CA

AUTHORIZATION: River & Harbor Act of 1902, 1911, 1917, 1938, 1945, 1965, 1968 Sec 117

LOCATION AND DESCRIPTION: The San Pablo Bay & Mare Island Strait project is located in Solano County, California and consists of the Mare Island Strait and Pinole Shoal Channels.

RECOVERY ACT ALLOCATIONS TO DATE: $9,851,022
CONFERENCE AMOUNT FOR FY 2010: $2,518,000
BUDGET FOR FY 2011: **M**: $2,750,000 **O**: $0 **T**: $2,750,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 2,750,000 - Funding provides for annual maintenance dredging of the Pinole Shoal Channel. The channel provides access to refineries and the ports of Sacramento and Stockton.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Pinole Shoal Channel provides deep water access for commercial traffic of foreign and domestic deep draft merchant and oil tanker vessels to the Suisun Bay Channel and the Ports of Sacramento and Stockton.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Ana River Basin, CA

AUTHORIZATION: Flood Control Act of 1936 (as amended 1938)

LOCATION AND DESCRIPTION: The project is located in the Counties of Riverside, Los Angeles and Orange, California. The project includes routine operation and maintenance of five Dams with 4 recreational areas and about 15.7 miles of flood control channels along San Antonio & Chino Creek within the Santa Ana River Basin.

RECOVERY ACT ALLOCATIONS TO DATE: $ 5,381,742
CONFERENCE FOR FY 2010: T: $ 2,940,000
BUDGET FOR FY 2011: M: $1,718,000 **O**: $3,165,000 **T**: $4,883,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $4,547,000 – funding provides for maintenance and operations of San Antonio, Prado, Carbon Canyon, Brea, and Fullerton Dams and appurtenant structures, and San Antonio & Chino Creek Channels, entry permits, encroachment and outgranting, completion of scheduled Periodic Inspections of Prado and San Antonio Dams, service facilities and grounds, utilities, maintenance of permanent operating equipment, reservior operations, hydrographic instrument maintenance, and compliance and utilization inspections. Signage and fencing at specific locations to protect acreage from dumping and to provide protection to sensitive habitats.

REC: $175,000 – funding provides for routine operations of recreation facilities.

HYDRO: N/A

ES: $161,000 – funding provides for signage and fencing at specified locations to protect acreage from dumping and to provide protection to sensitive habitats, cultural review due to local development and requests for restoration on Corps land particularly in Prado Basin; herbicide for Arundo removal, Section 7 consultations and coordination with local lessees as to proper operation and maintenance in sensitive areas. Contains Critical Habitat for several bird species at Prado Basin; Carbon Canyon has one listed species.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Barbara Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1935, 1945 (amended 1976)

LOCATION AND DESCRIPTION: Located in Santa Barbara, CA, the project consists of bi-annual maintenance dredging of the Entrance Channel.

RECOVERY ACT ALLOCATIONS TO DATE $ 0
CONFERENCE FOR FY 2010: T: $1,606,000
BUDGET FOR FY 2011: M: $2,040.000 **O**: $0 **T**: $2,040,00

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,040,000 – Funding provides for critical bi-annual maintenance dredging to assure safe navigation. These funds would provide for critical maintenance dredging of the Entrance Channel.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Frequent and rapid shoaling of the Entrance Channel is a major problem. Emergency oil spill containment vessels and the US Coast Guard are stationed at Santa Barbara Harbor.

Division: South Pacific District: Los Angeles Project Name: Santa Barbara Harbor, CA

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Santa Rosa Dam & Lake, New Mexico

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83-780)

LOCATION AND DESCRIPTION: Santa Rosa Dam & Lake is located on the Pecos River at the river mile 766.4 in Guadalupe County approximately 7 miles north of Santa Rosa and 120 mile from Albuquerque, New Mexico. Santa Rosa Dam & Lake drainage area is 2,434 square miles. The dam is a rolled earth filled structure with a maximum height above streambed of 212 ft. Storage capacity at the spillway crest is 438,364 acre-feet which includes 82,000 acre-feet for sediment reserve, 200,000 acre-feet for irrigation and 167,000 acre-feet for flood control storage. The dam crest length is 1,950 ft with a top width of 36 ft. The outlet works consists of a 10 ft diameter circular concrete tunnel controlled by two sets of 5x9 ft hydraulic slide gates, intake structure, gate chamber, and flip bucket energy dissipater. The uncontrolled spillway is cut in rock. There are four recreation areas consisting of 509 acres. Three recreation areas are operated by the New Mexico Park and Recreation Division. Project has been operational since 1980.

RECOVERY ACT ALLOCATION TO DATE: $128,711
CONFERENCE AMOUNT FOR FY2010: $1,044,000
BUDGET FOR FY2011: **M**: $428,000 **O**: $792,000 **T**: $1,220,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $976,000 – funding provides for routine operations and maintenance for flood risk management; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $96,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance and water management of water control data systems.

HYDRO: N/A

ES: $148,000 – funding provides for routine operations and maintenance of environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to insure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification - 2 which will require out-year funding to help reduce the risk at the project with regard to public safety.

Division: South Pacific District: Albuquerque Project Name: Santa Rosa Dam & Lake, NM

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Success Lake, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Tule River, about 6 miles east of Porterville, and comprises an earth-fill dam with a maximum height of 142-feet with an ungated saddle spillway, and an auxiliary earth-fill dam or dike about 40-feet-high, creating a reservoir gross storage capacity of 85,000-acre-feet. This project is located in Tulare County.

RECOVERY ACT ALLOCATIONS TO DATE: $2,855,416
CONFERENCE AMOUNT FOR FY2010: $1,890,000
BUDGET FOR FY2011: M: $510,000 **O**: $2,019,000 **T**: $2,529,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,515,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $947,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $67,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Suisun Bay Channel, CA

AUTHORIZATION: River & Harbor Act of 1927, 1930, 1935, 1960

LOCATION AND DESCRIPTION: The Suisun Bay Channel is 30 miles northeast of San Francisco, California. Project consists of the Main Channel and New York Slough.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $3,819,000
BUDGET FOR FY 2011: **M**: $2,980,000 **O**: $0 **T**: $2,980,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $ 2,980,000 - Funding provides for annual maintenance dredging of the Main Channel. All commercial deep draft and national defense shipping to Sacramento and Stockton must traverse through this project.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Provides access to Ports of Sacramento, Stockton, and Concord Naval Weapons Station, which is important for national security.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Terminus Dam, Lake Kaweah, CA

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: The project is located on the Kaweah River about 20 miles east of Visalia, and comprises an earth fill dam with a height of 200-feet, with an auxiliary earth fill dam 130-feet-high and fuse gates adjacent to the left abutment of the dam, creating a reservoir with a storage capacity of 185,630-acre-feet. The project is located in Tulare County.

RECOVERY ACT ALLOCATIONS TO DATE: $2,295,186
CONFERENCE AMOUNT FOR FY2010: $1,936,000
BUDGET FOR FY2011: M: $405,000 **O**: $1,728,000 **T**: $2,133,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY2011:

N: N/A

FRM: $1,189,000 - Funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

REC: $891,000 - Funding provides for routine operations and maintenance for recreation; inspection of recreational facilities; environmental compliance; implementation of law enforcement agreements; real estate management; contract administration; water safety outreach and environmental education; partnerships and collaboration with stakeholders; and enforcement of Title 36, CFR, Chapter 111, Part 327, "Rules and Regulations Governing Public Use of Corps of Engineers Water Resources Development Projects".

HYDRO: N/A

ES: $53,000 - Funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of Threatened, Endangered, and Special Status species; monitoring and management of invasive species; conservation, restoration, and management of natural resources; protection of historical, archeological, and cultural resources; as well as support for Global Information System and level one inventories.

WS: N/A

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Trinidad Lake, Colorado

AUTHORIZATION: Flood Control Act of 1958 (P.L. 85-500)

LOCATION AND DESCRIPTION: Trinidad Lake is located on the Purgatoire River in Las Animas County, Colorado. Trinidad Dam drainage area is 671 square miles, a rolled earth filled structure 6,610 feet long with a crest width of 24 ft. and maximum height of 200 feet above the streambed. The reservoir has two uncontrolled spillways with a 10 ft dia. gated control conduit with a discharge capacity of 5,700 cubic-feet-per-seconds. There are 4 recreation areas consisting of 389 acres. The state of Colorado operates and maintains the recreations areas. Project has been operational since 1977.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE FOR FY 2010: $912,000
BUDGET FOR FY 2011: M: $486,000 **O**: $757,000 **T**: $1,243,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,099,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datum requirements; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $88,000 - funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYDRO: N/A

ES: $56,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: As a risk based assessment of dam safety, this project is rated a Dam Safety Action Classification-2 which will require out-year funding to help reduce the risk at the project with regard to public safety. Work on design and construction of recreation facilities at Trinidad Lake continued with Colorado State Parks in accordance with Cost Share Agreement. The remaining balance of funding under the terms of the Cost Share Agreement was received in FY09. A significant portion of work still remains for rehabilitation and modernization of the recreation areas.

Division: South Pacific District: Albuquerque Project Name: Trinidad Lake, CO

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Two Rivers Dam, New Mexico

AUTHORIZATION: Flood Control Act of 1954 (P.L. 83.780)

LOCATION AND DESCRIPTION: Two Rivers Dam is located in Chavez County, New Mexico, 14 miles southwest of the city of Roswell and 2300 miles from Albuquerque, New Mexico. Two Rivers Dam drainage area is 1,027 square miles. The project consists of two dams, one on the Rio Hondo and the other on the Rocky Arroyo, both tributaries of the Pecos River. Diamond "A" Dam on the Rio Hondo and Rocky Dam on the Rocky Arroyo are both earth fill. Diamond "A" is 4,885 feet-long and 98 feet-high with a gated outlet. Rocky Dam is 2,940 feet-long and 118 feet-high with an uncontrolled outlet.. Recreation facilities include picnic shelters and an overlook structure. Project has been operational since 1963.

RECOVERY ACT ALLOCATION TO DATE: $972,917
CONFERENCE AMOUNT FOR FY2010: $384,000
BUDGET FOR FY2011: **M**: $238,000 **O**: $363,000 **T**: $601,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $543,000 – funding provides for routine operations and maintenance for flood risk management; and access bridge seismic restraint for dam safety. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $43,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance and water management of water control data systems.

HYDRO: N/A

ES: $15,000 – funding provides for routine operations and maintenance of environmental stewardship; monitoring and management of endangered species; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: There is an on-going issue with the City of Roswell to have them recover and maintain sufficient floodwater evacuation enabling channel capacity on the Rio Hondo and Rocky Arroyo below Two Rivers Dams. Despite their 1960 Resolution committing them to obtain maintenance easements, they never have obtained them and it has seriously compromised protection from major floods. The main obstacle has been refusal of landowners to provide easements, coupled with very limited motivation by Roswell to pursue them and some skepticism on the needs. We continue to push the city to resolve the issue.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Upper Rio Grande Water Operations Model, NM

AUTHORIZATION: Flood Control Act of 1944, Sec 7 (P.L. 78-534)

LOCATION AND DESCRIPTION: Rio Grande Watershed, Colorado, New Mexico, and Texas. The Upper Rio Grande Water Operations Model assists water managers in flood control operations, water accounting, and evaluation of water operation alternatives. Six Federal agencies entered into a Memorandum of Understand in 1996 and again in 2008 to develop a unified water operations/planning model(s) to coordinate model development activities with other Rio Grande Basin interests. The operations and planning models perform multi-contractor accounting and forecasting to simulate daily storage and delivery operations. URGWOM is currently being used to evaluate water management alternatives for a Biological Assessment and Opinion under Section 7 of the Environmental Species Act. Efficient and flexible water management is crucial as agencies and stakeholders strive to meet competing demands for water, including endangered species needs.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY 2010: $2,053,000
BUDGET FOR FY 2011: **M:** $0 **O**: $1,000,000 **T**: $1,000,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $1,000,000 – funding provides for assistance in planning, forecasting and daily water operations of the Rio Grande system, and will be used for routine model support and enhanced technical development with other participating agencies/stakeholders. The model requires continued critical enhancements to better serve water managers and stakeholders in making more informed and efficient daily operational decisions for planning for Endangered Species Act and National Environmental Policy Act needs.

REC: N/A

HYDRO: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: The URGWOM model is a critical component that is collaboratively used by the Corps and other Federal Agencies to develop operational alternatives for Endangered Species Act compliance.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ventura Harbor, CA

AUTHORIZATION: Rivers and Harbors Act of 1965

LOCATION AND DESCRIPTION: Located in Ventura County, CA, the project elements consist of an Entrance Channel, Sand Trap, three Jetties, South Beach Groin, and a Detached Breakwater.

RECOVERY ACT ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: **T**: $6,107,000
BUDGET FOR FY 2011: **M**: $2,840,000 **O**: $0 **T**: $2,840,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,840,000 – Funds are being used to conduct maintenance dredging of the Entrance Channel and Sand Trap

FRM: N/A

Rec: N/A

Hydro: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: Storm activity and wave action cause sediment to shoal in the Entrance Channel and Sand Trap. Annual dredging of the Harbor is critical. Without maintenance dredging, the Harbor will experience shoaling at the Entrance, creating a hazard to navigation. Ventura is a subsistence harbor which supplies needed materials and personnel to the Channel Islands. The Harbor brings in over 50 million pounds of fish annually. Funds totaling $10,981,000 were provided from the FY08 and FY09 War Supplemental for the repair of critical areas of the Breakwater.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Whitlow Ranch Dam, AZ

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: The Project is located in approximately 50 miles Southeast of Phoenix, Arizona. The project elements being operated and maintained consist of an earth fill Dam, Outlet works, service roads, and a reservoir. The structure is un-gated and requires little maintenance. Initially placed in operation December of 1960, the project structures are in good condition.

RECOVERY ALLOCATIONS TO DATE: $ 0
CONFERENCE FOR FY 2010: $ 285,000
BUDGET FOR FY 2011: **M**: $124,000 **O**: $ 483,000 **T**: $ 607,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FRM: $578,000 – funding provides for maintenance of dam and appurtenant structures, entry permits, encroachment and outgranting and operation of dam; service facility and grounds, utilities, water control and reservoir operations, hydrographic instrumentation, compliance & utilization inspections, and formal periodic inspections and monitoring.

REC: N/A

HYDRO: N/A

ES: $ 29,000 – funding provides for labor and travel funds for cultural staff to perform field reconnaissance, update condition of cultural resources, and report on cultural/historic sites at Whitlow Ranch Basin. Fencing and signage to reduce unapproved grazing and off-road mechanized recreation within the basin.

WS: N/A

OTHER INFORMAION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Yuba River, CA

AUTHORIZATION: Rivers and Harbors Acts of 1896 & 1902

LOCATION AND DESCRIPTION: Project consists of a debris barrier, Daguerre Point Dam, with dikes across overflow channels and protective works (groins) downstream to maintain the Yuba River in its confined channel to the junction with the Feather River at Marysville. Federal responsibility consists of maintaining dikes and protective works to keep the Yuba River in its confined channel. The project is located in Yuba County.

RECOVERY ACT ALLOCATIONS TO DATE: $0
CONFERENCE AMOUNT FOR FY2010: $139,000
BUDGET FOR FY2011: **M**: $ 50,000 **O**: $71,000 **T**: $121,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $91,000 – Funding will be used for operation and maintenance of Dam and all appurtenant structures which includes the debris barrier with dikes across overflow channels and protective works downstream to maintain the Yuba River in its confined channel. Funding also includes monitoring and analysis of instrumentation and data collection and real estate requirements including state and local agency coordination.

FRM: N/A

REC: N/A

HYDRO: N/A

ES: $30,000 - Funding is required to comply with Endangered Species Act Section 7 terms and conditions.

WS: N/A

OTHER INFORMATION: District has been sued by citizens (SYRCL) group regarding Endangered Species Act listed species (salmon). District has been following conditions and terms of Biological Opinion for project operation and the citizens group is not satisfied with our actions. New Biological Opinion has been recently issued with extensive requirements to mitigate for fisheries impacts. Funding will be needed to implement these requirements.

SOUTHWESTERN DIVISION

SOUTHWESTERN DIVISION

JUSTIFICATION OF ESTIMATE

SOUTHWESTERN DIVISION
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FLOOD AND COASTAL STORM DAMAGE REDUCTION

1 February 2010

INVESTIGATIONS

1 February 2010

SWD - 7

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Southwestern

Study	Federal	Total Estimated Cost $	Allocation Prior To FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Tentative Allocation FY 2010 $	Allocation To FY 2011 $	Additional Complete After FY 2011 $
SURVEYS – CONTINUING – FLOOD & COASTAL STORM DAMAGE REDUCTION (122)								
Dallas Floodway Dallas, Texas Fort Worth District		12,000,000	0	98,000	1,824,000 [1/]	1,345,000	700,000	8,033,000

[1/] Includes $1.250,000 Recovery Act Allocations thru 31 Dec 09

The study area is located adjacent to the Stemmons business corridor and the central business district in metropolitan Dallas, Dallas County, Texas. The existing floodway extends along the Trinity River upstream from the abandoned Atchison, Topeka and SantaFe (AT&SF) railroad bridge at river mile 497.37, to the confluence of the West and Elm Forks at river mile 505.50, then upstream along the West Fork for approximately 2.2 miles and upstream along the Elm Fork approximately four miles. Of the 22.6 miles of levees within this project, the East Levee is 11.7 miles in length and the West Levee is 10.9 miles in length. In addition to the existing levees, the floodway includes a modified channel within the existing reach and structures including six pumping plants, five pressure conduits, and seven drainage structures. The original Dallas Floodway levees and interior drainage improvements were completed between 1928 and 1931 by the city of Dallas and the Dallas County Levee Improvement District. The Trinity River was rerouted by constructing a channel within the leveed floodway. The original channel was either filled or used for sump storage. In the mid 1940's, major floods compounded by continued upstream urbanization in the watershed overflowed the floodway system and resulted in severe flooding. Subsequently, several Corps of Engineers improvements to the Dallas Floodway were completed in 1959. The improvements included reinforcing and raising the levees to provide conveyance of the Standard Project Flood (SPF) within the floodway, plus four feet of freeboard. To improve interior drainage, additional pump stations were constructed and the channel within the floodway was further excavated to an average depth of 25 feet with a 50-foot bottom width, to provide the design capacity of 13,000 cubic feet per second (cfs). The existing Dallas Floodway project removed approximately 10,500 acres from the floodplain, most of which is now highly developed industrial property. Major floods occurred in 1989 ,1990, and 2007 in the Upper Trinity River basin. The existing Federal levee system prevented approximately $250 million in damages during the June 2007 flood event. Subsequent studies of the existing floodway levees within the project reach estimated their current level of protection to be approximately a 300-year frequency instead of the original SPF plus 4-feet of freeboard level of protection, due to changed hydrologic and hydraulic conditions resulting from increased upstream development and the availability of additional rainfall data. The sponsor is the City of Dallas. The feasibility cost sharing agreement is scheduled to be executed in March 2010.

The City of Dallas' comprehensive plan for future development on the Trinity River, entitled the Trinity River Corridor Project, includes flood risk management, recreation, ecosystem restoration, and transportation features. On-going studies related to the Trinity River Corridor Project involve coordination with multiple Federal (Federal Highways Administration and Federal Emergency Management Agency), State (Texas Department of Transportation), and local agencies. Section 5141 of the Water Resources Development Act of 2007 (Public Law 110-114) authorized construction of the City of Dallas' comprehensive plan at a total project cost of $459,000,000 with an estimated Federal share of $298,000,000 and an estimated non-Federal share of $161,000,000. However, in March 2009, the Corps of Engineers' periodic inspection of the existing Dallas Floodway Levee System, documented in the Periodic Inspection Report #9, identified a number of deficiencies that increased the risk for failure of the existing levee system, and to impact the Federal Emergency Management Agency accreditation of the levees for the 100-year flood event, required under the National Flood Insurance Program. Additional studies are required to identify remediation measures to restore the integrity of the existing Dallas Floodway Levee System before any of the authorized improvements can be implemented. The Corps of Engineers and the City of Dallas have worked collaboratively with other stakeholders to develop an action plan which includes a comprehensive, system-wide assessment of the City of Dallas' comprehensive plan to identify measures to remediate deficiencies in the existing levee system, and to determine the technical and environmental feasibility for implementing elements of the City of Dallas' comprehensive plan, while ensuring the integrity of the Dallas Floodway Levee System. The preliminary estimated cost of the overall feasibility study is $24,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$24,000,000
Reconnaissance Phase – Federal	$ 0
Feasibility Phase - Federal	$12,000,000
Feasibility Phase - non-Federal	$12,000,000

Fiscal Year 2010 funds are being used to execute the Feasibility Cost Sharing Agreement and initiate preparation of a feasibility report to evaluate all proposed projects within and adjacent to the existing Dallas Floodway, including an Environmental Impact Statement. Fiscal Year 2011 funds would be used to continue the feasibility study and integrated Environmental Impact Statement. The completion date for the feasibility study is to be determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
SURVEYS – CONTINUING – FLOOD & COASTAL STORM DAMAGE REDUCTION							
Guadalupe and San Antonio River Basins, Texas Fort Worth/Galveston Districts	8,382,000	3,213,000	793,000	382,000	359,000	600,000	3,035,000

The Guadalupe and San Antonio River watersheds are located in south-central Texas. Portions of these two watersheds intersect the Edwards Plateau, which is an ecological region of special note as it is the entrance conduit for water recharging the Edwards Aquifer, a major source of water supply within the region. The climate in this region is influenced by the Balcones Fault scarp whose topography tends to produce intense localized rainfall, especially during hurricane season in August and September. The Guadalupe basin has a drainage area of 6,700 square miles, and the San Antonio River basin 4,180 square miles. Flooding within various portions of the Guadalupe and San Antonio River basins was severe in 1972, 1978 and 1997, when portions of the river basins were declared disaster areas. Major flood events also occurred in 1998, 2000, 2002, and 2004. The flood event in October 1998 was one of the most devastating in the region, resulting in approximately $800 million in damages and 31 deaths: the July 2002 event had damages in excess of $1 billion and nine deaths and the flood event in June 2004 resulted in the loss of three more lives. The purpose of the Guadalupe and San Antonio River study is to identify risks and opportunities for flood risk management, especially as it relates to human safety. Both structural and non-structural alternatives have been identified and are currently being evaluated. Additional study purposes include ecosystem restoration, water supply, recreation and other allied purposes. Texas Senate Bill 1 (1997) includes the evaluation of alternatives to enhance water supply, including recharge to the Edwards Aquifer and Comal and San Marcos Springs. The Edwards Aquifer contains seven endangered and one threatened species. They are Fountain Darter *Etheostoma fonticola (E),* Texas Blind Salamander *Typhlomolge rathbuni (E)*, San Marcos Gambusia *Gambusia georgei (E),* Texas Wild Rice *Zinania texana(E)*, Comal Springs Riffle Beetle *Heterelmis comalensis (E)*, Comal Springs Dryopid Beetle *Stygoparnus comalensis (E),* Peck's Cave Amphipod *Stygobromus pecki (E)*, and San Marcos Salamander *Eurycea nana (T)*. Such alternatives, if adopted, could provide dual benefits of ecosystem restoration and water supply. There are currently five interim feasibility studies (Cibolo Creek, Leon Creek, Salado Creek, Alamo Heights, and Hays County) under the Guadalupe-San Antonio River Feasibility Study. All five Interim Feasibility Studies are multipurpose studies addressing flood risk management, ecosystem restoration, and water supply. The non-Federal sponsors are the San Antonio River Authority and the Guadalupe Blanco River Authority.

Fiscal Year 2010 funds are being used to continue plan formulation for the Cibolo Creek Interim Feasibility Study, evaluate alternatives for the Leon Creek Interim Feasibility Study, and continue Plan Formulation on the Salado Creek Interim Feasibility Study. Fiscal Year 2011 funds could be used to complete the report for the Leon Creek Interim Feasibility Study, complete the draft report for the Cibolo Creek Interim Feasibility Study, and continue formulation for the Salado Creek Interim Feasibility Study. The preliminary estimated cost of the overall feasibility study is $15,692,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Guadalupe and San Antonio River Basins, Texas (continued)

Total Estimated Study Cost	$16,228,000
Reconnaissance Phase (Federal)	536,000
Feasibility Phase (Federal)	7,846,000
Feasibility Phase (Non-Federal)	7,846,000

The completion date for the Leon Interim Feasibility Study is to be determined; the completion date for the Cibolo Interim Feasibility Study is to be determined; the completion date for Salado Creek Interim Feasibility Study is to be determined; and the completion date for the Hays County and Alamo Heights Interim Feasibility Studies, and the overall Guadalupe San Antonio River Basins, Texas, feasibility study is to be determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
SURVEYS – CONTINUING – FLOOD AND COASTAL STORM DAMAGE REDUCTION							
Lower Colorado River Basin, TX Fort Worth/Galveston Districts	13,391,000	6,573,000	439,000	406,000	484,000	425,000	5,064,000

The Lower Colorado River basin encompasses a geographic area of approximately 21,000 square miles, and includes portions of the following counties in central and south Texas: Bastrop, Blanco, Burnet, Colorado, Fayette, Hays, Lampasas, Llano, Matagorda, Mills, San Saba, Travis and Wharton. The northernmost reaches of the study area include the Highland Lakes upstream of Austin, while the southernmost boundary is the Gulf of Mexico. The study area is bounded by the Guadalupe, Lavaca, and Colorado-Lavaca basins on the west, and the Brazos and Brazos-Colorado basins on the east. The major metropolitan areas within the study boundaries are Austin, Bastrop, Bay City, Columbus, LaGrange, Marble Falls and Wharton. An Information Paper, dated October 2003, documented the studies that were conducted to identify the problems, needs and opportunities of the basin. In October 1998, widespread flooding and related damages occurred throughout the Lower Colorado River basin and served as the impetus for initiating this study in 1999. Subsequently, basinwide flooding has occurred in 2002, 2004, and most recently in June 2007, when the area around the city of Marble Falls received a history-making 19 inches of rainfall within a 24-hour period. A major watershed in the basin is Onion Creek, which originates in Blanco County, continues through Hays County, and then into Travis County, where the creek flows into the Colorado River. Onion Creek is the largest creek within the rapidly growing urban area of Austin, with a drainage area of 343 square miles, collecting flows from Williamson, Slaughter, Bear, Little Bear, Rinard, South Boggy, Marble and Cottonmouth Creeks and their tributaries. The creek has a long history of flooding, dating back to 1869 and most recently in 1981, 1991, 1998, 2001, 2002 and 2004. Onion Creek, Shoal Creek, Walnut Creek, Bastrop County, the Highland Lakes, and the city of Wharton have experienced increased flooding and alterations to wildlife habitat. The study identified approximately 34,000 structures in the Lower Colorado River floodplain with over $25 million in expected average annual damages. The study also identified 25 potential sites for ecosystem restoration. The Lower Colorado River Basin, Phase I Feasibility Study for Onion Creek and the city of Wharton were completed in December 2006, and were authorized in the Water Resources Development Act of 2007 (Public Law 110-114). The Interim Feasibility Studies for Bastrop County, Highland Lakes, Shoal Creek and Hays County are currently underway. The Lower Colorado River Authority is the local sponsor for the Lower Colorado River Basin Study and acts on behalf of the local interests for the various interim studies.

Fiscal Year 2010 funds are being used to continue the Interim Feasibility Studies for Highland Lakes and Bastrop County; initiate the Shoal Creek Interim Feasibility Study; and initiate review/development of existing conditions for Phase 1 of Hays County Interim Feasibility Study. Fiscal Year 2011 funds will be used to continue the Highland Lakes, Shoal Creek, and Bastrop County Interim Feasibility Studies; complete Phase 1 and initiate Phase 2 of Hays County Interim Feasibility Studies. The estimated cost of the overall feasibility study is $26,782,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Lower Colorado River Basin, TX (continued)

Total Estimated Study Cost	$ 26,907,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	13,391,000
Feasibility Phase (Non-Federal)	13,391,000

The scheduled completion dates for Interim Feasibility Studies are as follows; Hays County, May 2011; Highland Lakes, September 2011; Shoal Creek and Bastrop County, to be determined. The completion date for the overall basin wide study is to be determined.

CONSTRUCTION

1 February 2010 SWD - 14

APPROPRIATION TITLE: Construction - Local Protection (Flood & Coastal Storm Damage Reduction)

PROJECT: Brays Bayou, Houston, Texas (Continuing)

LOCATION: The project is located in the metropolitan area of Houston, in Harris County, Texas.

DESCRIPTION: The project consists of an Upstream and Downstream Element to include construction of 4 detention basins (Sam Houston, Old Westheimer Road, Eldridge Road, and Willow Waterhole); enlargement or modification of 21.1 miles of earthen channel, replacement and / or lengthening of 27 bridges, and recreation features including hike and bike trails, picnic facilities, sports fields, comfort stations, and parking areas.

AUTHORIZATION: Water Resources Development Act (WRDA) of 1990, and section 211 of WRDA 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.7 to 1 at 7 percent

TOTAL BENEFIT-COST RATIO: 2.7 to 1 at 7 percent

INITIAL BENEFIT-COST RATIO: 2.97 to 1 at 7 5/8 (FY 1998)

BASIS OF BENEFIT-COST RATIO: Benefits for the Upstream Element are from the latest economic analysis included in the Design Memorandum #1, dated September 1997 with October 1996 price levels. Benefits for the Downstream Element are from the General Reevaluation Report, dated December 2008, and approved 3 April 2009, with October 2009 price levels. Benefits for the total project are from the economic analysis included in the comprehensive Feasibility Report for Buffalo Bayou and Tributaries, dated July 1990 with October 1989 price levels.

Division: Southwestern **District: Galveston** **Project: Brays Bayou, Houston, Texas**

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2011)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$308,217,000		Entire Project	47%	To be Determined
Estimated Non-Federal Cost		254,183,000				
Cash Contributions	30,097,000					
Other Costs	224,086,000					
Total Estimated Project Cost		$562,400,000				
Allocations to 30 September 2007		59,113,000				
Allocation for FY 2008		13,453,000				
Allocations to 30 September 2009		77,577,000				
Recovery Act Allocations thru 31 Dec 09		0				
Conference Allowance for FY 2010		7,777,000				
Allocation for FY 2010		7,777,000				
Allocations through FY 2010		85,354,000	28%			
Allocation Requested for FY 2011		7,740,000	30%			
Programmed Balance to Complete after FY 2011		211,490,000				
Unprogrammed Balance to Complete after FY 2010		0 3,633,000	1/			

PHYSICAL DATA

Channel Improvements – 21.1miles
Detention Basins - 4
Bridge replacements/modifications – 27
Recreation facilities Hike-and-bike trails with picnic facilities, sports fields, and other day-use facilities.

1/ Unprogrammed balance is for Recreation.

Division: Southwestern **District: Galveston** **Project: Brays Bayou, Houston, Texas**

1 Febr 2010 SWr 6

JUSTIFICATION: Brays Bayou drains about 137 square miles in the south-central portion of the Buffalo Bayou watershed. The area is subject to rainstorms throughout the year and urban flooding is a common occurrence. About 53,400 homes and businesses are currently subject to flooding by the Standard Project Flood (SPF), and about 25,000 of these properties would be subject to flooding by a 100-year frequency flood. On an average annual basis, stream flooding could cause nearly $46,000,000 in damages per year to existing properties. The plan would reduce the existing 100-year frequency floodplain area by about 97 percent. Average annual flood damages would be reduced by about 95 percent. The recreational development will partially satisfy existing demand in the area. Average annual benefits, annualized at a 7-3/8% interest rate and based on October 1996 prices are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$ 135,442,300
Recreation	3,132,957
Total	$ 138,575,257

FISCAL YEAR 2010: The current amount of $7,777,000 is being used to reimburse the Harris County Flood Control District (non-Federal Sponsor) for the Federal share of construction work performed during fiscal year 2010 in accord with Section 211 (f) of the Water Resources Development Act of 1996 and the associated Engineering and Design and Construction Management costs as follows.

Final Reimbursement for completed FY10 work for Discrete Segment #16	
Eldridge Road Basin	$ 7,657,000
Federal Oversight	120,000
Total	$ 7,777,000

FISCAL YEAR 2011: The requested amount of $7,740,000 will be used to reimburse the Harris County Flood Control District (non-Federal Sponsor) for the Federal share of construction work performed during fiscal year 2011 in accord with Section 211 (f) of the Water Resources Development Act of 1996 and the associated Engineering and Design and Construction Management costs as follows.

Reimbursement for completed FY11 work for Discrete Segment #26	
Eldridge Road Basin	$ 7,620,000
Federal Oversight	120,000
Total	$ 7,740,000

NON-FEDERAL COST & REQUIREMENTS: Brays Bayou has been identified as a demonstration project by Section 211(f) of the Water Resources Development Act of 1996 (P.L. 104-303). This Act authorized the non-Federal sponsor to accomplish the work and be subsequently reimbursed for the Federal share of completed discrete segments, in accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	80,949,000	
Modify or relocate, utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	143,137,000	
Pay one-half of the separable costs allocated to recreation and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,632,000	357,300
Pay 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	26,465,000	618,700
Total Non-Federal Costs	254,183,000	976,000

The non-Federal sponsors must also agree to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The sponsor for the flood damage reduction project is Harris County, acting through the Harris County Flood Control District. The Project Cooperation Agreement (PCA) for the flood control portion of the Upstream (Detention) Component was executed on March 3, 2000, and included the provision of Section 211, WRDA 96. In accordance with Section 211(f) of the Water Resources Development Act of 1996, the sponsor has investigated the Downstream (Diversion) Component in an effort to find an alternative to the authorized project. Their General Reevaluation Report, dated December 2008, was submitted to the Assistant Secretary of the Army, Civil Works (ASA(CW)), and was approved April 3, 2009. An amendment to the existing PCA has been prepared and is anticipated to be executed in April 2010. There is currently no sponsor for the recreation features of the project.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $308,217,000 is a decrease of $37,836,000 from the latest estimate ($346,053,000) presented to Congress (FY 2010). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	(-) $ 2,521,000
Revised Cost Estimate from approved GRR	(-) 35,315,000
Total	(-) $37,836,000

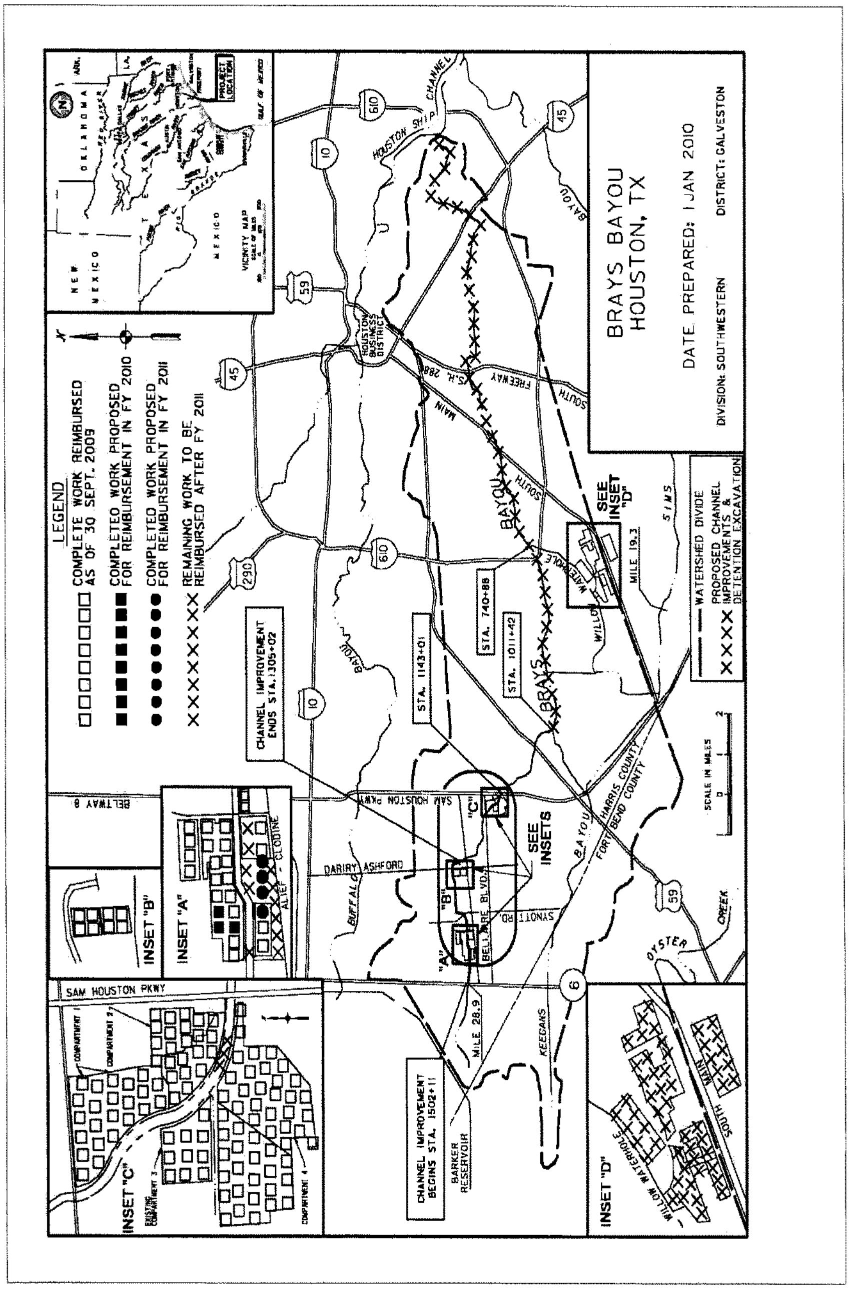
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was filed with the Environmental Protection Agency in September 1988. The Environmental Assessment (EA) for the Detention Component was completed on 3 April 1998 with the signing of the Finding of No Significant Impacts (FONSI).

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1990, and funds to initiate construction were appropriated in Fiscal Year 1998.

The authorized project for Brays Bayou is divided into two separable elements – a detention element and a diversion element. Because the diversion element is supported by neither the Sponsor nor the local residents, an alternative to the diversion element has been evaluated in a General Reevaluation Report (GRR). This GRR was approved by the ASA (CW) on April 13, 2009. The recommended plan within the GRR includes 17.4 miles of earthen channel modifications, replacement and/or lengthening of 27 bridges, and 1,900 acre-feet of storm water detention on a tributary (Willow Waterhole). The alternative to the diversion element is referred to as the downstream component of Brays Bayou. The upstream component of Brays Bayou (which is the detention element as defined in the separable element analysis) comprises features of the authorized plan that have already been designed and, for most of the features, constructed – 8,800 acre-feet of storage in 3 detention basins, 3 in-channel control structures, and 3.7 miles of channel improvements. Construction on the upstream component began in FY98.

The project was included in the Water Resources Development Act of 1996 (Section 211(f)(6)) as a demonstration project to show advantages and effectiveness of non-Federal interests to undertake planning, design, and construction of Federal Flood Control projects. The Harris County Flood Control District (HCFCD) will receive reimbursement upon completion and approval of discrete segments of the authorized project. Each discrete segment's work will be audited prior to reimbursement. Funds being appropriated will be used to reimburse the sponsor and to pay Corps oversight costs.

Harris County experienced a major flooding event on October 15 through 16th, 2006. The HCFCD reported that completed discrete segments of the Brays Bayou project (3 regional detention basins) located upstream of the Sam Houston Tollway stored more than 3,500 acre-feet of water (equivalent to 1.1 billion gallons of water or 2.2 Astrodomes), which reduced residential and commercial flooding within the watershed.



Division: Southwestern District: Galveston Project: Brays Bayou, Houston, Texas

1 Febr 2010 SW

APPROPRIATION TITLE: Construction, General - Dam Safety Seepage and Stability

PROJECT: Canton Lake, Oklahoma, (Dam Safety Seepage and Stability), (Continuing)

LOCATION: The project is located on the North Canadian River about 2 miles north of Canton in Blaine County, Oklahoma.

DESCRIPTION: Construction of the project was completed in May 1948. The dam consists of a rolled earth fill embankment with a gate controlled, concrete gravity chute-type spillway located in the right abutment. The outlet works consist of three sluices through the spillway weir, which are controlled by broome-type gates. The recommended plan for resolution of the dam safety deficiencies consists of anchoring the existing spillway to improve sliding stability, relocating Highway 58A, constructing an auxiliary spillway to increase the discharge capacity required during a probable maximum flood event, and placing the excavated material from the spillway excavation at the toe of the earthen dam to resolve the seismic and seepage deficiencies as an additional benefit.

AUTHORIZATION: Flood Control Act of 1938.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

SUMMARIZED FINANCIAL DATA		FED. COST	ACCUM. PCT. OF EST.
Original Project			
Actual Federal Cost	$ 11,210,000		
Actual Non-Federal Cost	$ 0		
Cash Contributions	0		
Total Original Project Cost	$ 11,210,000		
Remedial Works or Project Modification			
Estimated Total Appropriation Requirement		$ 148,865,000	
Future Non-Federal Reimbursement		5,694,000	
Estimated Federal Cost (Ultimate)		143,171,000	
Estimated Non-Federal Cost		5,694,000	
Cash	$5,694,000		
Other	$0		
Total Estimated Remedial or Modification Cost		148,865,000	
Total Estimated Project Cost		$ 160,075,000	
Allocations to 30 September 2007		15,505,000 1/	
Allocation for FY 2008		17,023,000	
Allocation for FY 2009		20,288,000	
Recovery Act Allocations thru 31 Dec 09		0	
Conference Allowance for FY 2010		22,911,000	
Allocation for FY 2010		22,911,000	
Allocation through FY 2010		75,727,000	51%
Allocation Requested for FY 2011		24,334,000	68%
Programmed Balance to Complete		48,804,000	
Unprogrammed Balance to Complete after FY 2010		0	

STATUS (1 Jan 2010)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	35%	To be Determined

PHYSICAL DATA
Dams
- Anchor Stabilization of Existing Spillway Structure
- New Auxiliary Spillway and Channel
- New Auxiliary Spillway Bridge

1/ Funds of $750,000 provided in the FY 2002 Construction, General Appropriation, Dam Safety Seepage and Stability Program line item for the Dam Safety Report are not included in the project cost.

Division: Southwestern **District: Tulsa** **Project: Canton Lake, Oklahoma (Dam Safety Seepage and Stability)**

JUSTIFICATION: The Dam Safety Assurance Report, approved in 2002, indicated two serious and interrelated hydrologic deficiencies occurred at the existing Canton Lake. The deficiencies included inadequate factors of safety against spillway sliding and uncontrolled embankment overtopping by the Probable Maximum Flood. In 2005 Canton was included in Screening Portfolio Risk Assessment which indicated that Canton was within the top ten percent highest at risk dams with regard to failure by uncontrolled seepage. In 2005 a Seismic Safety Review was conducted which indicated that the embankment could move during a seismic event. The population at risk is 60,000 people with potential economic losses estimated between $1.75 and $2.64 Billion.

FISCAL YEAR 2010: The current amount of $22,911,000 is being applied as follows:

Complete construction on the existing contract to excavate the auxiliary spillway channel, construct diaphragm channel walls, spoil placement, ground water control, and cutoff wall	15,450,000
Initiate fully funded auxiliary spillway bridge contract	3,134,000
Independent External Peer Review Study	350,000
Real estate for mitigation	300,000
Initiate engineering and design of phase 2 excavation (plug removal)	777,000
Complete engineering and design for weir, control wet well and hydraulic piping	1,350,000
Construction Management S&A	1,550,000
Total	$22,911,000

FISCAL YEAR 2011: The requested amount of $24,334,000 will be applied as follows:

Award a fully funded contract for construction of the weir, control wet well, and hydraulic piping	18,015,000
Award a fully funded contract for construction of the fuse gates	3,810.000
Complete engineering and design for weir and fuse gates	290,000
Continue engineering and design of phase 2 excavation (plug removal)	669,000
Construction Management S&A	1,550,000
Total	$24,334,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Costs
Pay 15 percent of cost assigned to project purposes in accordance with the cost allocation in effect for the project at the time of initial project construction. Water supply storage is 25.5 percent of the joint-use costs.	$ 5,694,000	0
Total Non-Federal Costs	$ 5,694,000	0

The non-Federal sponsor will reimburse its share of construction costs over a period not to exceed 30 years following completion of construction.

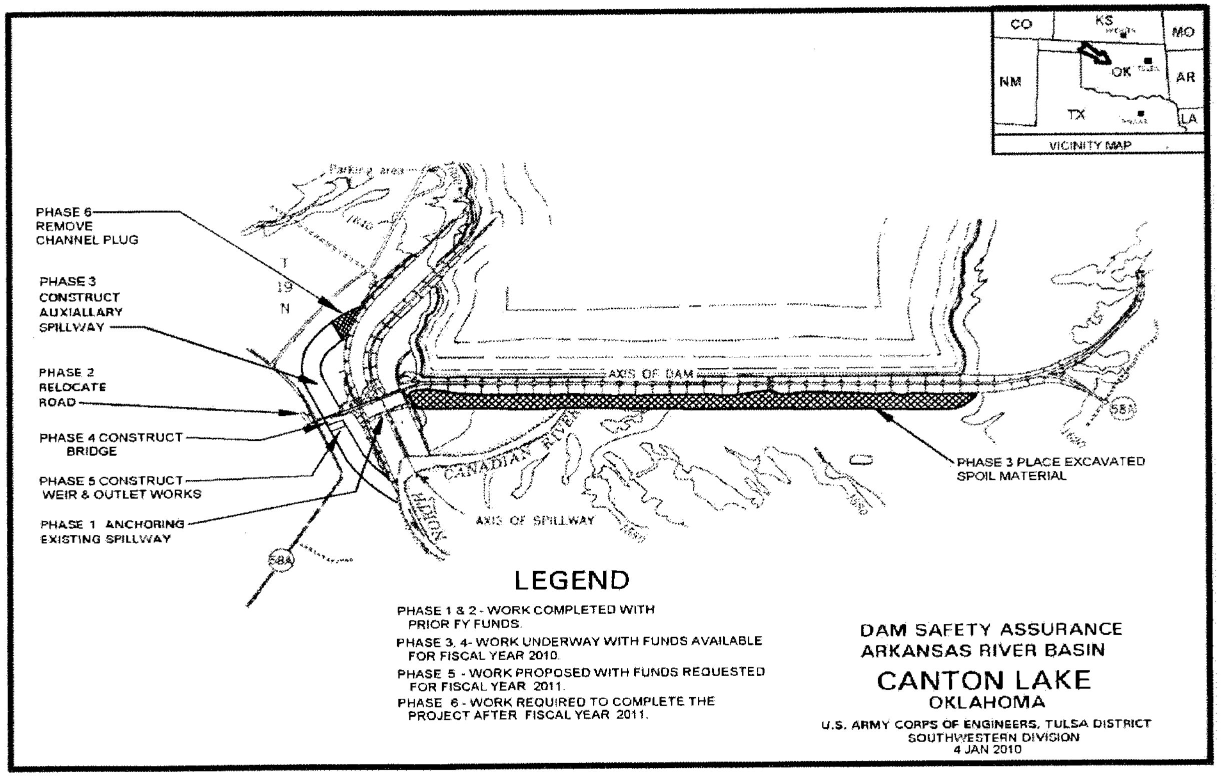
STATUS OF LOCAL COOPERATION: The city of Oklahoma City has 100 percent of the water supply storage under contract. Water supply storage is 25.5 percent of the joint-use costs. Reimbursement payments will be initiated at the completion of construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $148,865,000 is an increase of $69,565,000 from the last estimate presented to Congress (FY 2009). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	(+) 5,863,000
Post Contract award and other Estimating Adjustments	(+) 63,702,000
Total	(+) 69,565,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: Not required. The provisions of Section 404 of the Clean Water Act do not apply because the project improvements do not involve the placement of fill material or the discharge of dredge material in the waters of the United States.

OTHER INFORMATION: A Dam Safety Assurance Program Evaluation Report was approved in March 2002. Construction funds were first appropriated for this project in Fiscal Year 2003. During FY06 a seismic and seepage study was performed in addition to the Design Document Report (DDR), which required the relocation of the auxiliary spillway from the Left Abutment to the Right Abutment areas of Canton Dam due to foundation issues.


VICINITY MAP
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PHASE 6 REMOVE CHANNEL PLUG
PHASE 3 CONSTRUCT AUXIALLARY SPILLWAY
PHASE 2 RELOCATE ROAD
PHASE 4 CONSTRUCT BRIDGE
PHASE 5 CONSTRUCT WEIR & OUTLET WORKS
PHASE 1 ANCHORING EXISTING SPILLWAY
PHASE 3 PLACE EXCAVATED SPOIL MATERIAL
Parking area
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19
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AXIS OF DAM
CANADIAN RIVER
NORTH
AXIS OF SPILLWAY
58A

LEGEND

PHASE 1 & 2 - WORK COMPLETED WITH PRIOR FY FUNDS.

PHASE 3, 4- WORK UNDERWAY WITH FUNDS AVAILABLE FOR FISCAL YEAR 2010.

PHASE 5 - WORK PROPOSED WITH FUNDS REQUESTED FOR FISCAL YEAR 2011.

PHASE 6 - WORK REQUIRED TO COMPLETE THE PROJECT AFTER FISCAL YEAR 2011.

DAM SAFETY ASSURANCE
ARKANSAS RIVER BASIN
CANTON LAKE
OKLAHOMA
U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT
SOUTHWESTERN DIVISION
4 JAN 2010

Division: Southwestern **District: Tulsa** **Project: Canton Lake, Oklahoma (Dam Safety Seepage and Stability)**

APPROPRIATION TITLE: Construction – Major Rehabilitation (Reservoirs)

PROJECT: Clearwater Lake Major Rehabilitation, Missouri (Continuing)

LOCATION: Clearwater Lake is located on the Black River in Wayne and Reynolds Counties in southeast Missouri.

DESCRIPTION: The project provides for the construction of a concrete cutoff wall along the entire length of the dam, through the impervious core trench, and into bedrock to prevent seepage and piping of materials through and under the dam. The project purpose is flood damage reduction and 100% of storage is for this purpose.

AUTHORIZATION: Flood Control Act of 1938 (Public Law 761, 75th Congress, 3rd Session).

REMAINING BENEFITS-REMAINING COST RATIO: Not Applicable.

TOTAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

INITIAL BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

BASIS OF BENEFIT-COST RATIO: Not applicable since the project is a dam safety seepage and stability project.

SUMMARIZED FINANCIAL DATA		ACCUM PCT OF EST FED COST
Estimated Federal Cost	$244,688,000	
Estimated Non-Federal Cost	0	
Total Estimated Project Cost	$244,688,000	
Allocations to 30 September 2007	42,675,000	
Allocation for FY 2008	22,745,000	
Allocation for FY 2009	23,924,000	
Recovery Act Allocations thru 31 Dec	35,211,000	
Conference Allowance for 2010	37,791,000	
Allocation for FY 2010	37,791,000	
Allocations through FY 2010	162,346,000	66%
Allocation Requested for FY 2011	40,000,000	83%
Programmed Balance to Complete after FY 2011	42,342,000	
Unprogrammed Balance to Complete after FY 2011	0	

PHYSICAL STATUS (1 Jan 2009)	PCT CMPL	COMPLETION SCHEDULE
Entire Project	27%	To be Determined

PHYSICAL DATA
Concrete Cutoff Wall approximately 1,000,000 square feet

Division: Southwestern District: Little Rock Project: Clearwater Lake Major Rehabilitation

JUSTIFICATION: Clearwater Dam has experienced seepage related issues, extending back to shortly after completion of original construction. Over the course of the dam's history, various methods have been employed to remediate or reduce seepage related issues. In spite of all these efforts and expenditures, the problem has worsened. A sinkhole developed in the upstream face of the dam in January 2003, calling into question the integrity of the dam embankment and potentially the clay core. Continuing to defer a long-term solution to the seepage problem increases the risk of a dam failure. Noteworthy is the fact that conditions of earth dams have the potential to deteriorate quickly, with little evidence. Continuing to utilize O&M funding to monitor and band-aid the problem is no longer viable. The area that would be affected by a dam failure primarily extends from the dam downstream to Poplar Bluff, MO. If dam failure occurs, there would be very little warning time before Piedmont, MO is cutoff and inundation begins; adverse impacts to Poplar Bluff, MO would occur within one day. The limited state highways follow the valley where flooding will occur, making egress and response assistance to the population at risk very difficult. Many smaller towns affected by flooding have only one egress route. The rural nature of the area makes emergency notification difficult. Failure of Clearwater Dam would negate the benefits for which the project was originally approved. The risk-based economic analysis indicates property damages of up to $200,000,000 and potentially 369 deaths. Clearwater Lake is an important economic resource for the area, primarily through recreational usage. Failure of the dam and loss of the lake would result in the loss of its economic value to the area. Though residents might return to salvage their property following a failure, decreased property values, loss of jobs, income losses, and loss of wealth due to flood induced expenses would have negative economic effects. Average annual benefits are as follows:

Annual Benefits		Amount
Emergency Action	$	162,500
Flood Damage		2,563,900
Foregone Recreation		82,500
Dam Repair		4,363,900
Traffic Delay		-330,978
Total		$6,841,822

FISCAL YEAR 2010: The allocated amount of $40,000,000 is being applied as follows:

Continue Construction of Cutoff Wall – Phase II	$37,000,000
Complete Seismic Study	500,000
Planning, Engineering, and Design	1,000,000
Construction Management	1,500,000
Total	$40,000,000

FISCAL YEAR 2011: The requested amount of $40,000,000 will be applied as follows:

Continue Construction of Cutoff Wall – Phase II	$36,400,000
Refurbish Access Bridge	150,000
Revise Water Control Plan	950,000
Planning, Engineering, and Design	1,000,000
Construction Management	1,500,000
Total	$40,000,000

NON-FEDERAL COST: This major rehabilitation project is 100% federally funded.

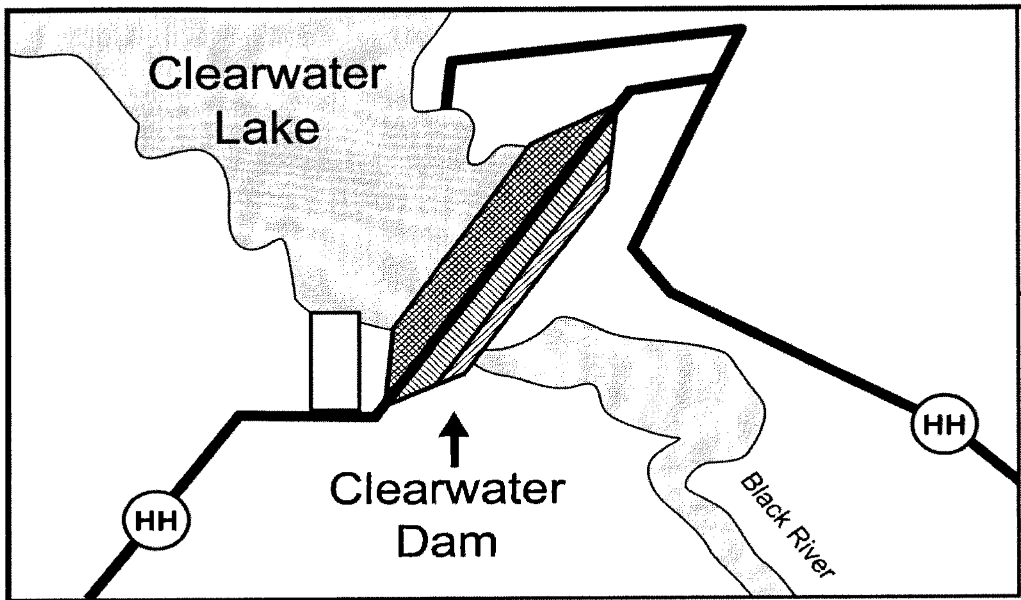
STATUS OF LOCAL COOPERATION: There are no cost sharing or repayment requirements applicable to this project.

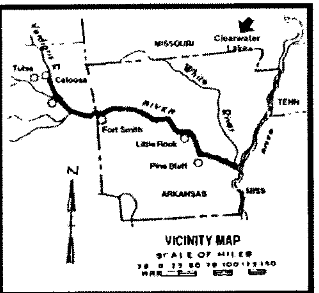
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $244,688,000 is a decrease of $3,838,000 from the latest estimate ($248,526,000) presented to Congress (FY 2009). This change includes the following items.

Item	
Price Escalation on Construction Features	-$12,851,000
Design Changes -	46,431,000
Authorized Modifications	48,000,000
Other Estimating Adjustments	7,444,000
Total -	$3,838,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: An environmental assessment of the project was completed in May 2004, with signature of the Finding of No Significant Impact in June 2004.

OTHER INFORMATION: The Major Rehabilitation Report was submitted in June 2004 and approved by the Assistant Secretary of the Army for Civil Works in August 2004. Funds to initiate construction were appropriated in Fiscal Year 2006. A Phase I and Ib drilling and grouting program to identify and treat subsurface features that would ultimately impact construction of the cutoff wall, as well as refine the parameters of the cutoff wall was implemented. The Phase I contract was awarded in January 2006, and completed in October 2007. A second Phase I contract, Phase Ib – Completion of Exploratory Drilling and Grouting, was awarded in August 2007 with NTP in October 2007. Fiscal year 2007 funds were used to award the Phase Ib contract, initiate additional seismic evaluation and monitoring of the dam, and conduct interim risk reduction measure planning. Phase II of the project consists of construction of the cutoff wall, and the contract was awarded in September 2008. Fiscal year 2008 and 2009 funds were used to continue Phase Ib construction. The Phase Ib construction experienced unexpectedly large quantity increases and cost escalation due to the poor condition of the rock underlying the dam. This extended completion of Phase Ib and delayed the start of the Phase II cutoff wall construction. ARRA funds in the amount of $35M were received in fiscal year 2009, which enabled progress to continue on Phase Ib with physical completion accomplished in October 2009. The construction notice to proceed was issued on the Phase II cutoff wall contract in May 2009. Fiscal year 2010 funds will be used to continue construction of Phase II and perform other dam safety requirements. Completion of the project is currently scheduled for fiscal year 2014. A preliminary seismic evaluation of the dam for the operating basis earthquake was conducted during the design of Phase I. Additional evaluation of the dam for the maximum credible earthquake is necessary to determine if the dam meets Corps dam safety criteria, which is being conducted concurrent with the cutoff wall project.





■	Work complete as of 30 SEP 2009
▩	Work proposed with funds available for FY 2010
▧	Work proposed with funds available for FY 2011
▨	Work required to complete the project after 2011

Initiate Phase II Cutoff Wall Construction
Continue Phase IB-Exploratory Drilling & Grouting
Initiate Seismic Study

Complete Phase IB - Drilling & Grouting
Complete Seismic Study
Continue Phase II Construction

Continue Phase II Construction

COMPLETE REHAB
CONSTRUCTION

WHITE RIVER BASIN
CLEARWATER LAKE
MISSOURI
(MAJOR REHAB)
U.S. ARMY ENGINEER DISTRICT LITTLE ROCK
U.S. ARMY ENGINEER DIVISION, SOUTHWESTERN
1 JANUARY 2010

APPROPRIATION TITLE: Construction – Flood Risk Management

PROJECT: Onion Creek, Lower Colorado River Basin, TX (New Start)

LOCATION: Onion Creek, Lower Colorado River Basin, Texas is located in southern Travis and northern Hays counties in Texas.

DESCRIPTION: The project consists of implementing non-structural flood risk management measures at Timber Creek in Travis County and Onion Creek Forest/Yarrabee Bend in Austin, Texas. The Timber Creek element includes the acquisition and removal of approximately 81 residential structures from the 4 percent annual chance of exceedance (25-year) floodplain. The vacated land will be utilized for recreation and ecosystem restoration, with approximately 40 acres of the vacated land converted to a park, and 16 acres restored to riparian woodlands. Recreation features include 20 picnic shelters, 8 small group shelters, 1 large group shelter, 5,300 feet of unpaved trails and 1,200 feet of paved 10 foot wide trails, 2 basketball courts, one waterborne restroom, 12,000 square feet of parking, and the infrastructure associated with these facilities. The Onion Creek Forest/Yarrabee Bend element includes the acquisition and removal of approximately 410 residential structures from the 4 percent annual chance of exceedance (25-year) floodplain. The vacated land will be utilized for recreation and ecosystem restoration, with approximately 100 acres of the vacated land converted to a park, and 190 acres restored to riparian woodlands. Recreational features include 32 picnic shelters, 32 small group shelters, 1 large group shelter, 7,860 feet of unpaved trails and 9,680 feet of paved 10 foot wide trails (including 1 footbridge), 7,400 feet of equestrian trails, 4 basketball courts, 2 tennis courts, 19 volleyball courts, one waterborne restroom, 20,000 square feet of parking, and the infrastructure associated with these facilities.

AUTHORIZATION: Water Resources Development Act of 2007, Section 1001 (43) and Section 5144.

REMAINING BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

TOTAL BENEFIT-COST RATIO: 1.7 to 1 at 7 percent.

BASIS OF BENEFIT-COST RATIO: Economic Analysis as shown in the Chief of Engineers Report dated 31 December 2006.

Division: Southwestern **District: Fort Worth** **Project: Onion Creek, Lower Colorado River Basin, TX**

1 Febr 2010 SW

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST FED. COST
Estimated Federal Cost		52,943,000	
Estimated Non-Federal Cost		30,217,000	
Cash Contributions	3,085,000		
Other Costs	27,132,000		
Total Estimated Project Cost		83,160,000	
Allocations to 30 September 2007		0	
Allocation for FY 2008		45,000	
Allocation for FY 2009		500,000	
Conference Allowance for FY 2010	0		
Recovery Act Allocations thru 31 Dec 09		0	
Allocation for FY 2010	0		
Allocation Requested for FY 2011	10,000,0	00	20
Programmed Balance to Complete After FY 2011	42,398,0	00	
Unprogrammed Balance to Complete After FY 2011	0		

PHYSICAL STATUS (1 Jan 2010)	PERCENT COMPLETE	COMPLETION SCHEDULE
Entire Project	0	To be Determined

PHYSICAL DATA

Timber Creek
  Acquisition of approximately 81 structures
  Construction of 40 acre park
  Ecosystem restoration of 16 acres
Onion Creek Forest/Yarrabee Bend
  Acquisition of 410 residential structures
  Construction of 100 acre park
  Ecosystem restoration of 190 acres

JUSTIFICATION: Onion Creek watershed, which has an area of approximately 343 square miles, is located in southern Travis and northern Hays counties in Texas. Significant flood events were experienced in 1998 and 2001, with hundreds of homes being inundated, and many totally destroyed. These events highlighted the fact that annualized flood damages within the watershed are estimated at over $5 million, based on August 2006 estimates. A project has been authorized for Onion Creek which will significantly reduce damages and risk to life and property. In addition, the Onion Creek area will benefit from additional ecosystem restoration and recreational features placed on land vacated as a result of the removal of structures from the highly flood prone areas. The non-Federal sponsors consider this project to be of such urgency that advanced land acquisition and construction has been initiated without any assurances of continued Federal participation.

	Annual Monetary Benefits Amount
Flood Risk Management	$ 3,010,000
Recreation	3,130,000
Total	$ 6,140,000

Ecosystem Restoration – net increase of approximately 86 Average Annual Habitat Units

Division: Southwestern **District: Fort Worth** **Project: Onion Creek, Lower Colorado River Basin, TX**

FISCAL YEAR 2010: No scheduled construction activities.

FISCAL YEAR 2011: The $10,000,000 requested will be applied as follows:

Initiate buyout of the Timber Creek area	$	3,800,000
Initiate buyout of the Onion Forest/Yarrabee Bend area		5,700,000
Engineering & Design		150,000
Supervision & Administration		350,000
Total	$	10,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as modified by the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	**Payments During Construction and Reimbursements**	**Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs**
Provide lands; easements; rights-of-way; relocation payments and assistance to displaced persons; disposal areas for borrow and excavated or dredged material; and modify or relocate utilities, roads, bridges, and other facilities, where necessary for the construction of the project.	$ 68,569,000	$ 230,000
Modify and relocate/reconstruct utilities, roads, bridges and other facilities, where necessary for the construction of the project.	0	
Pay one-half of the separable costs allocated to recreation (except recreation Navigation) and bear all cost of operation, maintenance, repair, rehabilitation and replacement of recreation facilities. Includes betterments for recreation.	3,085,000	
Cash reimbursement to sponsor sufficient to limit the sponsor's contribution to the maximum amount set by law.	(41,437,000)	
Total Non-Federal Costs	$ 30,217,000	$ 230,000

The non-Federal sponsor will make all required payments concurrently with project construction.

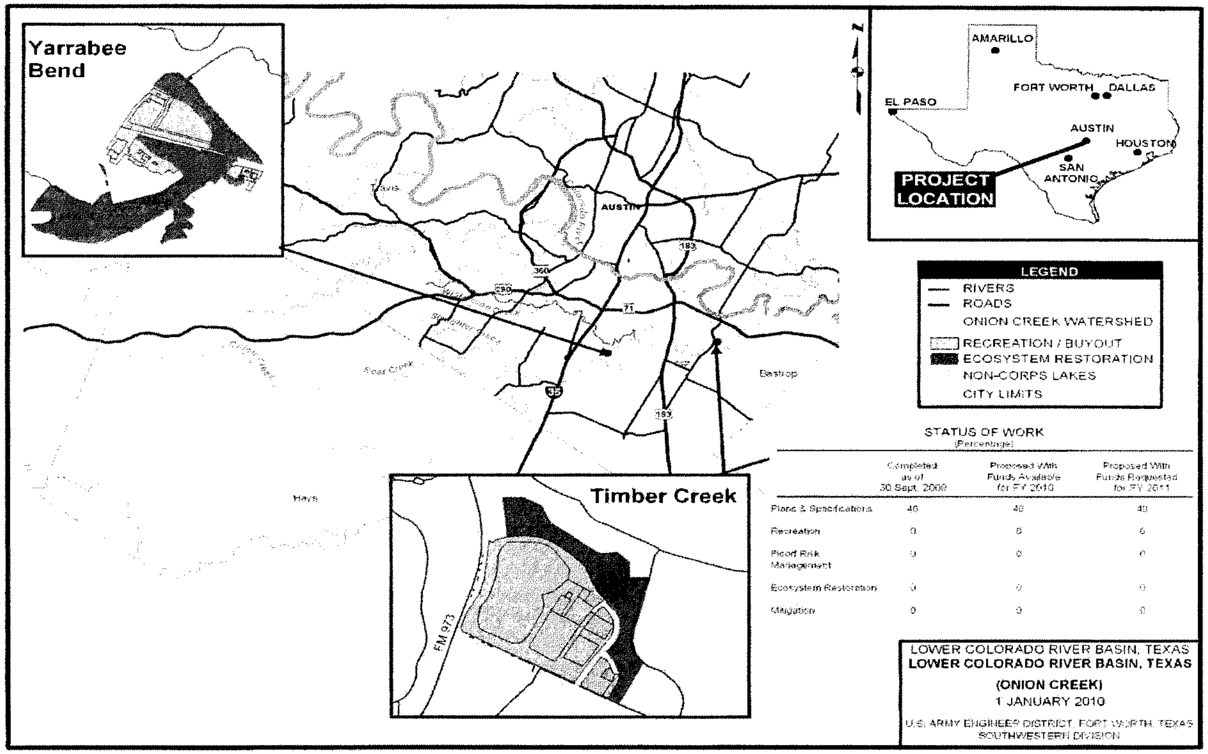
Division: Southwestern **District: Fort Worth** **Project: Onion Creek, Lower Colorado River Basin, TX**

STATUS OF LOCAL COOPERATION: The city of Austin and Travis County have each indicated their intention to act as the local sponsor for the segment within their jurisdictional area, and will fund the non-Federal portion of this project. The city of Austin and Travis County will collectively contribute approximately 37 percent of the total project costs of the Onion Creek component, primarily through land acquisition, as well as receipt of credit for prior project activities authorized by the Water Resources Development Act of 2007, Section 5144. The Project Partnership Agreement (PPA) for the Timber Creek element is scheduled to be executed in March 2011. The PPA for the Onion Creek Forest/Yarrabee Bend element is scheduled to be executed in March 2011.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal (Corps of Engineers) cost estimate has not previously been presented to Congress. This estimate is based on costs presented in the Chief of Engineers Report dated 31 December 2006.

ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment was conducted and a Finding of No Significant Impact (FONSI) was prepared as part of the required documentation for compliance with the National Environmental Policy Act. The FONSI was executed on 10 October 2006.

OTHER INFORMATION: The Chief of Engineers' Report was signed on 31 December 2006. Section 5144 of WRDA 2007 authorized the Secretary to include the costs and benefits associated with the relocation of flood-prone residences in the study area in the period beginning two years before the date of initiation of the feasibility study (Feasibility Cost Sharing Agreement executed on 25 May 2000) and ending on the date of execution of the partnership agreement for construction of the project, to the extent the Secretary determines that such relocations are compatible with the authorized project. This section also directs the Secretary to afford credit toward the non-Federal share of the project for the cost of relocation of residences that were incurred by the non-Federal interest. A Limited Reevaluation Report (LRR) is being developed to identify the scope of the project that incorporates any residences that were removed by non-Federal interests. The LRR is scheduled to be completed in June 2010.



STATUS OF WORK
(Percentage)

	Completed as of 30 Sept. 2009	Proposed With Funds Available for FY 2010	Proposed With Funds Requested for FY 2011
Plans & Specifications	40	40	40
Recreation	0	0	0
Flood Risk Management	0	0	0
Ecosystem Restoration	0	0	0
Mitigation	0	0	0

LOWER COLORADO RIVER BASIN, TEXAS
LOWER COLORADO RIVER BASIN, TEXAS
(ONION CREEK)
1 JANUARY 2010
U.S. ARMY ENGINEER DISTRICT, FORT WORTH, TEXAS
SOUTHWESTERN DIVISION

Division: Southwestern **District: Fort Worth** **Project: Onion Creek, Lower Colorado River Basin, TX**

NAVIGATION

1 February 2010

SWD - 35

INVESTIGATIONS

1 February 2010

SWD - 36

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
Brazos Island Harbor, Texas Galveston District	5,008,000	1,392,000	394,000	478,000	538,000	726,000	1,480,000

The Brazos Island Harbor project provides deep draft access from the Gulf of Mexico through a jettied entrance channel to Brownsville, a side channel, authorized to 36 feet, and shallow draft Fishing Boat Harbor near Port Isabel. The project is 22.8 miles in length. The authorized depths are 42 feet for the main channel and 44 feet through the jetties outer bar. Increased port traffic is direct result of the North American Free Trade Agreement (NAFTA) as a majority of the increased traffic meets industrial needs in Mexico. The Port of Brownsville is the only U.S. deep draft port available to the industry along the U.S. – Mexico border. Port activities include offshore rig construction, ship repair and dismantling, steel fabrication, rail car rehabilitation, liquid petroleum gas storage/distribution, chemical and miscellaneous liquid, steel products and ore minerals offloading, and grain handling and storage. The Port of Brownsville has been the nation's second largest in-transit harbor by volume. Total tonnage in the port increased from 829,000 tons in 1992 to 5,105,000 tons in 2005. Foreign imports, primarily in-transit cargo, have been the primary driver for growth, while domestic movements remain relatively constant. In 2005, the foreign trade increased 46 percent from the previous year. In 2002, 73 percent (of inbound cargo was in-transit to Mexico. Iron ore, iron, and steel products, and other metal ores and products dominate the inbound foreign cargo. In addition to traditional vessel traffic, there is a need for increased channel dimensions in order to serve offshore rigs presently operating in the U.S. Gulf Coast. The Study is located in the area of the Laguna Madre, a pristine aquatic and marine life habitat. The area also serves as a feeding and breeding area for colonial and migratory birds. Studies will be conducted to determine any impacts that the project may have on salinity changes, sediment deposits, aquatic sea grasses and plants, and wildlife within the area and minimize the impacts that the project may create. Approximately 6,500 acres of tidal marsh and brush habitat associated with the feeding, breeding and wintering of colonial and migratory water birds was destroyed in the mid-20th century due to loss of tidal connection by surrounding development. In anticipation of project construction, authorization was received in the FY 2003 Consolidation Appropriations Act to credit work proposed to be accomplished by the Port of Brownsville for restoration of the Bahia Grande as wetland areas for mitigation against the non-Federal costs of deepening the channel, if it is determined to be integral to the project. The proposal would achieve improved flow and enhanced circulation associated with a wider and deeper channel. This would be especially beneficial with respect to tidal flow and circulation patterns for protected rookery island, and in San Martin Lake. The non-Federal Sponsor is the Port of Brownsville. The Feasibility Cost Share Agreement (FCSA) was executed in June 2006.

Fiscal Year 2010 funds are being used to narrow alternatives, complete ship and rig simulations, and revise hydrodynamic modeling to include new alternatives. Fiscal Year 2011 funds could be used to develop the National Economic Development Plan; select the Recommended Plan; and continue preparation of the draft feasibility report, draft Environmental Impact Statement and Engineering Appendix. The estimated cost of the feasibility phase is $9,722,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost is as follows:

Total Estimated Study Cost	$9,869,000
Reconnaissance Phase (Federal)	147,000
Feasibility Phase (Federal)	4,861,000
Feasibility Phase (non-Federal)	4,861,000

The reconnaissance phase was completed in June 2006 with the execution of the Feasibility Cost Sharing Agreement . The scheduled completion date of the feasibility phase of the study is to be determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
Gulf Intracoastal Waterway - High Island to Brazos River (Realignments), Texas Galveston District	2,255,000	238,000	0	191,000	170,000	200,000	1,456,000

The study area includes approximately 85 miles of the Gulf Intracoastal Waterway (GIWW) in Galveston and Brazoria Counties, from High Island, Texas, to the Brazos River. Tonnage transported along this section of the GIWW totaled nearly 59 million tons in 2007, with a commercial value exceeding 15 billion dollars and includes petrochemicals as the major commodity shipped. The GIWW High Island to Brazos reconnaissance study completed in February 1995 concluded that modifications to the existing GIWW were economically feasible from reduction in delay benefits. Investigations to identify potential solutions to resolve the navigation issues along this reach of the GIWW have been divided into two interim feasibility studies. The first interim feasibility report GIWW High Island to Brazos River, which was completed in April 2004, identified solutions to navigation problems at Sievers Cove and the Texas City Channel (West Wye). This work was authorized in section 1001(42) of the Water Resources Development Act of 2007. The second interim feasibility report will include evaluation of navigation improvements in negotiating two 90-degree bends near High Island associated with transit delays at Rollover Pass and developing long-range placement area plans.; difficulties negotiating a double "S" curve near Freeport (Freeport Wiggles), and difficulties negotiating the intersection within the Chocolate Bayou Channel (Chocolate Bayou Wye). The GIWW is designated as part of the Nation's Inland Waterway System, and qualifies for 50-50 cost sharing from the Inland Waterways Trust Fund for construction of navigation improvements. An initial appraisal of the entire 423-mile Texas Section of the GIWW was completed in November 1989.

Fiscal Year 2010 funds are being used to continue the Interim Feasibility Study for High Island Bends, to include identifying preliminary costs and benefits for alternatives at each of the problem areas. Fiscal Year 2011 will be used to continue feasibility studies on select alternatives at Chocolate Bayou Wye and Freeport Wiggles. The feasibility study is scheduled for completion in to be determined.

AQUATIC ECOSYSTEM RESTORATION

1 February 2010

SWD - 39

INVESTIGATIONS

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
SURVEYS – CONTINUING – AQUATIC ECOSYSTEM RESTORATION							
Nueces River and Tributaries, Texas Fort Worth and Galveston Districts	6,001,000	1,494,000	461,000	574,000	368,000	250,000	2,854,000

The Nueces River basin, which lies in the southern part of Texas, has an overall length of approximately 235 miles, a maximum width of 115 miles, and a total drainage area of 17,075 square miles. The Nueces River flows in a southeasterly direction and enters Nueces Bay near Corpus Christi, Texas. The watershed includes portions of three major aquifers – the Edwards, Carrizo-Wilcox, and Gulf Coast. The Edwards Aquifer is the major source of water for the San Antonio and Bexar County metropolitan areas. This aquifer accounts for about 20 percent of the basin and is recognized as having high potential for groundwater recharge. The watershed also crosses many political, jurisdictional, and geographical boundaries and pits groundwater systems management against surface water systems management within the same basin. Poor land use practices, recent near-record droughts, and conflicting water resource management issues have resulted in significant environmental degradation. The lack of fresh water in flows into the Nueces Bay has resulted in hyper-saline conditions that have severely diminished the habitat suitability of approximately 20,000 acres of the Nueces delta area. In addition, the lowering of the Edwards Aquifer due to drought conditions and water pumpage has reduced spring flows from San Marcos and Comal Springs causing degradation of these rare and unique habitats and threatening the continued existence of seven endangered and one threatened species, including Fountain Darter,, Texas Blind Salamander,, San Marcos Gambusia, Texas Wild Rice, Comal Springs Riffle Beetle, Comal Springs Dryopid Beetle , Peck's Cave Amphipod, and San Marcos Salamander, endemic to these habitats. During a Nueces River basin feasibility study workshop held on 10 June 2007, which was attended by over 50 individuals representing 20 Federal, state and local water and environmental resource agencies, all parties agreed that the efforts to model the hydraulics and hydrology and the significant ecosystems of the Nueces watershed are extremely important, not only for the watershed study, but also for the region and Texas' State Water Planning efforts, including the development of environmental flow parameters for the protection of riverine and bay and estuary aquatic ecosystems. The study sponsors are the Nueces River Authority, San Antonio Water System, San Antonio River Authority, Guadalupe-Blanco River Authority and the city of Corpus Christi, Texas. The Feasibility Cost Sharing Agreement was signed on 24 September 2004.

Fiscal Year 2010 funds are being used to complete the development of the mid and lower basins hydrologic and hydraulic models, and to continue work on the Nueces Delta ecological models. Fiscal Year 2011 funds could be used to continue development of the basin wide ecological models and initiate development of the Programmatic Environmental Impact Statement. The estimated cost of the feasibility phase is $11,602,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$11,802,000
Reconnaissance Phase – Federal	200,000
Feasibility Phase – Federal	5,801,000
Feasibility Phase – non-Federal	5,801,000

The reconnaissance phase was completed in September 2004. The completion date for the feasibility study is to be determined.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011 Division: Southwestern

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2008 $	Allocation FY 2008 $	Allocation FY 2009 $	Allocation to FY 2010 $	Tentative FY 2011 $	Additional Complete After FY 2011 $
SURVEY – CONTINUING – AQUATIC ECOSYSTEM RESTORATION							
Sabine Pass to Galveston Bay, Texas Galveston District	6,164,000	2,531,000	98,000	382,000	170,000	200,000	2,783,000

The study area consists of approximately 90 miles of Gulf of Mexico shoreline in Jefferson, Chambers, and Galveston Counties along the upper Texas coast from Sabine Pass to San Luis Pass at the western end of Galveston Island. In the entire study area, over 200 houses and up to 40,000 people are affected by shore erosion. The major problems identified in the reach to the north of Galveston Bay are potential destruction of nationally significant wetlands; damage to homes and commercial property; and significant damage to State Highway 87, caused by shoreline erosion. Interest has been expressed in a project to stabilize the shoreline and thus protect nationally significant wetlands and other resources. The area traverses 12 miles of the 81,700-acre McFaddin Marsh National Wildlife Refuge and approximately 2-1/2 miles of the 15,100-acre Sea Rim State Park. Sea Rim State Park is located in the easterly portion of the study area, approximately 10 miles west of Sabine Pass with McFaddin Marsh Refuge immediately to the west. Along the Galveston Island, Texas reach of the study area, erosion rates in excess of 8 feet per year are occurring beyond the limits of the seawall in Galveston, Texas. This erosion, if continued, will result in damages to several beach communities. It has been demonstrated that an economically feasible project could be developed as a result of studies completed in the mid-1980 s for a Galveston Island Beach Erosion Study. A number of alternatives have been proposed, including beach nourishment and stone protection. The non-Federal Sponsors for the project are Galveston and Jefferson Counties. The Feasibility Cost Sharing Agreement was executed on 6 September 2001.

The FY2010 funds will be used to continue the feasibility phase of the study. The FY2011 funds will be used to continue the study by initiating the without project conditions report. The estimated cost of the feasibility phase is $12,158,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$12,243,000
Reconnaissance Phase (Federal)	85,000
Feasibility Phase (Federal)	6,079,000
Feasibility Phase (non-Federal)	6,079,000

The scheduled completion date of the feasibility phase of the study is to be determined.

OPERATION AND MAINTENANCE

Key to Abbreviations:

N = Navigation
FRM = Flood Risk Management
FDR = Flood Damage Reduction
Rec = Recreation
Hydro = Hydropower
ES = Environmental Stewardship
WS = Water Supply

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Aquilla Lake, Texas

AUTHORIZATION: Flood Control Act of 1968, PL 90-483

LOCATION AND DESCRIPTION: Aquilla Lake is located in Hill County, 0.8 miles southwest of Hillsboro, Texas. The project consists of an earthfill dam and uncontrolled concrete spillway, which creates a lake with total storage capacity of 146,500 acre-feet, flood control of 93,600 acre-feet, water supply of 34,100 acre-feet, and sediment reserve of 25,700 acre-feet. There is one undeveloped recreation area of 957 acres and six access areas totaling 27 acres. 2009 visitation totaled 230,862 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,564,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $319,000
BUDGET FOR FY2011: M: $362,000 **O**: $758,000 **T**: $1,120,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $867,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $140,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $92,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $21,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Arcadia Lake, OK

AUTHORIZATION: Flood Control Act of 1970

LOCATION AND DESCRIPTION: Arcadia Lake is located on the Deep Fork River at river mile 218.3, in the metropolitan area of Oklahoma City and Edmond in Oklahoma County, Oklahoma. This is a multi-purpose project with flood control, water supply, and recreation outputs. The project consists of a 5250 foot long rolled earth-filled embankment with an uncontrolled saddle spillway and 7x10 foot conduit controlled by two conduit gates. At conservation pool the lake covers 1820 acres.

CONFERENCE FOR FY 2010: **T**: $495,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,197,000
BUDGET FOR FY 2011: **M**: $185,000 **O**: $411,000 **T**: $596,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $529,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $41,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $10,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $16,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Arkansas-Red River Basins Chloride Control – Area VIII, TX

AUTHORIZATION: Flood Control Act of 1966, as modified by the Flood Control Act of 1970, and as amended by the Water Resources Development Acts of 1974, 1976, and 1986

LOCATION AND DESCRIPTION: The Arkansas-Red River Basins Chloride Control – Area VIII Project is located within the Wichita River basin in northern Texas. This is a single purpose project with water quality control outputs. The project consists of a low flow collection dam on the South Fork of the Wichita River and the Truscott Brine Lake on the North Fork of the Wichita River.

CONFERENCE FOR FY 2010: **T**: $1,481,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 09: $4,059,000
BUDGET FOR FY 2011: **M**: $0 **O**: $1,439,000 **T**: $1,439,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: N/A

REC: N/A

HYD: N/A

ES: $1,439,000 – funding provides for routine operations and maintenance at the project; water quality control; intensive wildlife management as required by WRDA 1986; monitoring of endangered and other fish and wildlife species; compliance activities associated with the National Historic Preservation Act; natural resources management; and water quality monitoring.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Barbour Terminal Channel, Texas

AUTHORIZATION: Sec. 107, PL 86-645

LOCATION AND DESCRIPTION: The project is located in the vicinities of Houston, Pasadena, La Porte, and Shore Acres in Harris County, Texas. The Barbour Terminal Channel and Turning Basin is a 1.7 mile long deep draft waterway (authorized depth of 40 feet) that extends from the Houston Ship Channel at Mile 26.3 west across Galveston Bay.

CONFERENCE FOR FY 2010: T: $0
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $1,811,000 **O**: $0 **T**: $1,811,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,811,000 – Funding provides for maintenance dredging of Barbour's Cut Terminal to authorized depth. These funds would improve navigation performance by increasing channel availability and reliability by increasing channel availability from 0% to 25% and would provide for 12 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bardwell Lake, Texas

AUTHORIZATION: "Bardwell Reservoir Construction," an act of March 1960, PL 96-399

LOCATION AND DESCRIPTION: The project consists of an earthfill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 85,400 acre-feet. Seven recreation areas comprise 1,238 acres. 2009 visitation totaled 601,508 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,118,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,065,000
BUDGET FOR FY2011: M: $500,000 **O**: $1,379,000 **T**: $1,879,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,032,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $726,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $95,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $26,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

Division: SWD District: SWF Project Name: Bardwell Lake, Texas

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bayport Ship Channel, TX

AUTHORIZATION: Sec. 819, PL 99-662

LOCATION AND DESCRIPTION: The project is located in the vicinities of Houston, Pasadena, La Porte, and Shore Acres in Harris County, Texas. The Bayport Ship Channel and Turning Basin is a 4.5 mile long deep draft waterway (authorized depth of 40 feet) that extends from the Houston Ship Channel at Mile 20.5 west across Galveston Bay.

CONFERENCE FOR FY 2010: **T**: $4,721,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: **M**: $4,028,000 **O**: $0 **T**: $4,028,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,028,000 – Funding provides for maintenance dredging of the Bayport Channel from the Flare to the Turning Basin; dredge material will be placed in an upland, confined placement area. These funds would improve navigation performance by increasing channel availability and reliability by increasing channel availability from 0% to 25% and would provide for 6 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Beaver Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938, as amended, and the Water Supply Act of 1958, as amended

LOCATION AND DESCRIPTION: The project is located in Benton, Carroll and Washington Counties of Arkansas. Beaver Lake is a multiple-purpose project located in the White River Basin.

CONFERENCE AMOUNT FOR FY 2010: $8,424,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,697,000
BUDGET FOR FY 2011: M: $5,729,000 **O**: $4,841,000 **T**: $10,570,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $5,510,000 – funding provides for routine operations and maintenance for flood risk management; bridge and dam safety inspections; installing additional foundation drains, replacement of deteriorated tainter gate control boxes; replacing tainter gate U-bolts; routine joint operations of the powerplant and dam components; perform encroachment resolutions; and provide compliance with the Comprehensive Evaluation of Project Datum (CEPD) Requirements. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide increased efficiency, and lower future repair costs.

REC: $2,860,000 – funding provides for routine operations and maintenance for recreation; implementaion of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

HYD: $1,729,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: $458,000 – funding provides for routine operations and maintenance for environmental stewardship; meet mandates of the National Historic Preservation Act; comply with the Endangered Species Act; and implementation for management of boat docks; and vegetation modification shoreline use permits.

WS: $13,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Belton Lake, Texas

AUTHORIZATION: Flood Control Act of 1946, as modified by the Flood Control Act of 1954

LOCATION AND DESCRIPTION: Belton Lake is located on the Leon River in Bell and Coryell Counties near the city of Belton, Texas. The project consists of an earthfill dam, uncontrolled spillway, and a gated outlet structure. There are 644,200 acre-feet of flood control storage. Fourteen recreation areas comprise 2,983 acres. 2009 visitation totaled 8,509,402 visitor hours.

CONFERENCE AMOUNT FOR FY2010: **T**: $3,117,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $18,964,000
BUDGET FOR FY2011: **M**: $885,000 **O**: $2,797,000 **T**: $3,682,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,333,000_- Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities. District dam safety required to repair/replace emergency bulkhead roller chains and repair badly corroded bulkheads.

REC: $2,057,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $274,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $18,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Benbrook Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14

LOCATION AND DESCRIPTION: Benbrook Lake is located in Tarrant County on the Clear Fork of the Trinity River, 15 river miles upstream from its confluence with the West Fork of the Trinity River, 10 miles southwest of Fort Worth, Texas. The project consists of a rolled earth fill dam (9,130 feet long x 130 feet high), an uncontrolled spillway (500 feet wide), a 13-foot diameter conduit controlled by two (6.5 feet x 13 feet) broom-type gates for inlets, and 2 gated outlets into two 30-inch steel pipe conduits. The flood control storage capacity is 170,350 acre-feet. Benbrook Lake has six recreation areas which comprise 3,033 acres. 2009 visitation totaled 3,708,381 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,447,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY2011: M: $570,000 **O**: $2,008,000 **T**: $2,578,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $925,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities and purchase an emergency generator to replace the existing generator.

REC: $1,464,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $164,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $25,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Birch Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Birch Lake is located at river mile 0.8 on Birch Creek, a tributary of Bird Creek, about 1.5 miles south of the town of Barnsdall in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 3193 foot long rolled earth-filled embankment with an uncontrolled spillway and 7.5x10 foot conduit controlled by two slide gates. At conservation pool the lake covers 1137 acres.

CONFERENCE FOR FY 2010: T: $857,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $624,000
BUDGET FOR FY 2011: M: $143,000 **O**: $503,000 **T**: $646,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $403,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $228,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $15,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Blue Mountain Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located in Logan and Yell Counties of Arkansas. Blue Mountain Lake is located in the Arkansas River Basin on the Petit Jean River, near Waveland, Arkansas. The primary purpose of the project is flood damage reduction.

CONFERENCE AMOUNT FOR FY 2010: $1,819,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $368,000
BUDGET FOR FY 2011: **M**: $288,000 **O**: $1,324,000 **T**: $1,612,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,031,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums (CEPD) requirements; and maintenance of three tractor gates, hoists, overhead bridge crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $456,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance.

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HYD: N/A

ES: $122,000 – funding provides for routine operations and maintenance for environmental stewardship; sustain existing forest, fish, wildlife and other natural resources; ensure historical, archeological and cultural resources are protected from vandalism; meet mandates of the National Historic Preservation Act; and comply with the Endangered Species Act.

WS: $3,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Brazos Island Harbor, TX

AUTHORIZATION: RHC Doc. 16, 71st Congress, 2nd Session, 1930; as amended, Sec. 201, PL 99-662, 1986

LOCATION AND DESCRIPTION: The Brazos Island Harbor project provides deep draft access from the Gulf of Mexico through a jettied entrance channel to Brownsville, a side channel authorized to 36 feet, and a shallow draft Fishing Boat Harbor near Port Isabel. The project is 22.8 miles in length. The authorized depths are 42 feet for the main channel and 44 feet through the jetties and outer bar.

CONFERENCE FOR FY 2010: T: $4,959,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $3,468,000 **O**: $0 **T**: $3,468,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,468,000 – Funding provides for routine annual dredging of the Brazos Island Harbor Jetty Channel. These funds would improve navigation performance by increasing channel availability and reliability by increasing channel availability from 0% to 25% and would provide for 6 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Broken Bow Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Broken Bow Lake is located on the Mountain Fork River, a tributary of the Little River, at river mile 20.3, approximately 9 miles northeast of the town of Broken Bow in McCurtain County, Oklahoma. This is a multi-purpose project with flood control, hydroelectric power, water supply, recreation, and fish and wildlife outputs. The project consists of a 2,750 foot long rolled earth-filled embankment with a concrete ogee weir controlled spillway and two 50,000 kW generators. At conservation pool the lake covers 14,200 acres.

CONFERENCE FOR FY 2010: T: $3,043,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,922,000
BUDGET FOR FY 2011: M: $1,175,000 **O**: $1,283,000 **T**: $2,458,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $638,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $70,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $1,706,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $30,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $14,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Buffalo Bayou and Tributaries, TX

AUTHORIZATION: House Document 456, 75th Congress, 2nd Session 1938 and modified by the 1954 Flood Control Act

LOCATION AND DESCRIPTION: The project is located on Buffalo Bayou and Mayde Creek on the west side of the City of Houston, in Harris and Fort Bend Counties, Texas. Addicks Dam and Reservoir is an earthen dam 61,166 feet long and 48.5 feet above the Mayde Creek streambed with a storage capacity of 200,840 acre-feet. Barker Dam and Reservoir is an earthen dam 71,960 feet long and 36.5 feet above the Buffalo Bayou streambed with a storage capacity of 209,000 acre-feet. These reservoirs are designed to reduce flooding in the City of Houston.

CONFERENCE FOR FY 2010: T: $2,811,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: T: $0
BUDGET FOR FY 2011: M: $1,507,000 **O**: $2,011,000 **T**: $3,518,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $3,518,000 –Activities include labor (district and field) and non-labor (field) costs for operating the project, implementing the stream gauging program, and water control bill-back programs. The funds will also be used for a dam safety field exercise, dam safety training, dam safety meetings, adding stream gage sites per the Interim Risk Reduction Management Plan, bridge inspections, and producing the project annual report. Utilization of these funds will allow the condition/consequence rating for this project to be at the C level. FY11 activities for basic maintenance include replace gate 1 at Barker Dam, cleaning and servicing piezometers installed on both dams, performing Comprehensive Evaluation of Project Survey Datum, and partial replacement of flex base material on top of both dams. Utilization of these funds will allow the project availability to remain at 70% level.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Bull Shoals Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Bull Shoals Lake is located in Marion, Baxter and Boone Counties of Arkansas and Ozark and Taney Counties of Missouri. Bull Shoals is a multi-purpose project with functional capabilities for hydropower and flood risk management.

CONFERENCE AMOUNT FOR FY 2010: $13,644,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $8,708,000
BUDGET FOR FY 2011: M: $1,272,000 **O**: $6,020,000 **T**: $7,292,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,126,000 – funding provides for routine operations and maintenance for flood risk management; perform stability analysis on dam; compliance with Comprehensive Evaluation of Project Datum (CEPD) requirements; restripe dam/bridge roadway and add reflectors; clean, refurbish and paint slide (sluice) gate hydraulic cylinders and operating machinery; replace dam sump pumps; and maintenance of 17 tainter gates, sluice gates, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $1,789,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: $3,102,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: $271,000 – funding provides for routine operations and maintenance for environmental stewardship; provide protection, monitoring and management of project natural resources; comply with the Endangered Species Act; comply with the statutory mandates of the Forest Cover Act; development of resource management plans; and compliance with the Archeological Resources Protection Act.

WS: $4,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Canton Lake, OK

AUTHORIZATION: Flood Control Act of 1938, Flood Control Act of 1946, Flood Control Act of 1948, and Water Resources Development Act of 1990

LOCATION AND DESCRIPTION: Canton Lake is located on the North Canadian River at river mile 394.3, about 2 miles north of the town of Canton in Blaine County, Oklahoma. This is a multi-purpose project with flood control, water supply, and irrigation outputs. The project consists of a 15,140 foot long rolled earth-filled embankment with a 640 foot gated concrete spillway that rises to a maximum height of 68 feet. Spillway discharges are controlled by sixteen 40x25 foot tainter gates. At conservation pool the lake covers 7,910 acres.

CONFERENCE FOR FY 2010: **T**: $2,107,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $834,000
BUDGET FOR FY 2011: **M**: $702,000 **O**: $1,247,000 **T**: $1,949,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $864,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,029,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $41,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $15,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Canton Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Canyon Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14, as modified by the Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Canyon Lake is located in Comal County, 12 miles northwest of New Braunfels, Texas, on the Guadalupe River. The project consists of a rolled earthfill dam, an uncontrolled spillway, and one conduit controlled by two slide gates. The flood control storage is 354,600 acre-feet. Eight recreation areas comprise 1,544 acres. 2009 visitation totaled 1,870,770 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,806,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $3,374,000
BUDGET FOR FY2011: M: $761,000 **O**: $2,668,000 **T**: $3,429,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,340,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities and repair service bridge and expansion shoes.

REC: $1,806,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $244,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $39,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

Division: SWD District: SWF Project Name: Canyon Lake, Texas

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Cedar Bayou, TX

AUTHORIZATION: Senate Doc 107, 71st Congress, 2nd Session

LOCATION AND DESCRIPTION: This shallow draft channel is located adjacent to the Houston and Barbours Terminal Channels. The project consists of a improved channel 10 feet depth, and 100 feet in width. It intersects the Houston Ship Channel at mile 2.5, and is 5.5 miles in length.

CONFERENCE FOR FY 2010: T: $1,701,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $1,695,000 **O**: $0 **T**: $1,695,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,695,000 – Implementation of the Dredge Material Management Plan (DMMP) on the existing and new upland placement areas and new beneficial use sites to increase disposal capacity in anticipation of future dredging. Adequate disposal capacity would improve navigation performance by increasing channel availability from 0% to 95% and provide for 36 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Channel to Port Bolivar, TX

AUTHORIZATION: RHC Doc. 16, 71st Cong., 2nd Sess., 1930; as amended, Sec. 201, PL 99-662, 1986.

LOCATION AND DESCRIPTION: The project is located near the City of Port Bolivar, Galveston County, Texas. Channel to Port Bolivar is a 14-foot deep, 200-foot wide, and 950-foot long shallow-draft channel, extending from the entrance to Galveston Bay (Bolivar Roads) northward to the tip of Bolivar Peninsula.

CONFERENCE FOR FY 2010: **T**: $364,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: **T**: $0
BUDGET FOR FY 2011: **M**: $329,000 **O**: $0 **T**: $329,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $329,000 – Funding provides for annual routine maintenance dredging for Channel to Port Bolivar. These funds would improve navigation performance by increasing channel availability and reliability from 0% to 25% and provide a 3-month level of service, at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Clearwater Lake, Missouri

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Clearwater Lake is located near Piedmont, Missouri, in Reynolds and Wayne Counties. The primary purpose is flood damage reduction but the project also provides environmental and recreation outputs.

CONFERENCE AMOUNT FOR FY 2010: $2,827,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $966,000
BUDGET FOR FY 2011: M: $385,000 **O**: $2,636,000 **T**: $3,021,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,859,000 – funding provides for routine operations and maintenance for flood risk management; compliance with Comprehensive Evaluation of Project Datums (CEPD) requirements; access bridge seismic restraint for dam safety; seal concrete intake bridge deck; and paint steel bridge superstructure. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $1,035,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $127,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and management of endangered species; support for GIS; specialized habitat management; and to ensure historical, archeological and cultural resources are protected.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Copan Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Copan Lake is located at river mile 7.4 on the Little Caney River, a tributary of the Caney River, about 9 miles north of the town of Bartlesville in Washington County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 7730 foot long rolled earth-filled embankment with a gate controlled, concrete, gravity ogee weir with four 50x35 foot tainter gates. At conservation pool the lake covers 4449 acres.

CONFERENCE FOR FY 2010: T: $984,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $506,000
BUDGET FOR FY 2011: M: $258,000 **O**: $846,000 **T**: $ 1,104,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $789,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $278,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $25,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $12,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Corpus Christi Ship Channel, TX

AUTHORIZATION: Senate Document 99, 90th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Corpus Christi Ship Channel (CCSC) is a 45-ft deep channel that extends from the Gulf of Mexico 34 miles into the Port of Corpus Christi.

CONFERENCE FOR FY 2010: T: $4,298,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $5,355,000
BUDGET FOR FY 2011: M: $4,608,000 **O**: $0 **T**: $4,608,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $4,608,000 – Dredging to improve navigation performance by increasing reliability and by increasing channel availability from 0% to 75% and would provide for 48 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Council Grove Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Council Grove Lake is located on the Grand (Neosho) River at river mile 449.5, 1.5 miles northwest of Council Grove in Morris County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project is a 6,500 foot long earth embankment with an uncontrolled spillway. At conservation pool the lake covers 3,259 acres.

CONFERENCE FOR FY 2010: **T**: $1,653,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $877,000
BUDGET FOR FY 2011: **M**: $544,000 **O**: $1,105,000 **T**: $1,649,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,000,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $572,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $64,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $13,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dardanelle Lock & Dam, Arkansas

AUTHORIZATION: Flood Control Act of 1944

LOCATION AND DESCRIPTION: This project is located in Pope, Logan, Johnson and Yell Counties of Arkansas. Dardanelle Lock and Dam are located on the McClellan-Kerr Arkansas River Navigation System and the project purposes include hydropower and navigation.

CONFERENCE AMOUNT FOR FY 2010: $9,270,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,418,000
BUDGET FOR FY 2011: M: $1,840,000 **O**: $5,792,000 **T**: $7,632,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,300,000 – funding provides for routine operations and maintenance for navigation required for pool regulation and lock operations; perform failure diagnostics and repairs; perform dam safety monitoring; routine joint operations of powerplant and dam components; channel maintenance to include dredging; and limited repair of structures. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FDR: $113,000 – funding provides for routine operations and maintenance of pump station, service facilities and permanent operating equipment to meet basic flood risk management mission. These funds would improve flood risk management performance by reducing the risk of failure, provide increased efficiency, and lower future repair costs.

REC: $1,812,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; water management of water control data systems; and operation and maintenance of visitor center.

HYD: $3,216,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: $191,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and protection of known archeological sites; comply with the Endangered Species Act; identification and protection of nesting sites; support shoreline management and compliance; outgrant compliance; and utilization inspections and management activities.

WS: N/A

OTHER INFORMATION: None

Division: SWD District: SWL Project Name: Dardanelle Lock & Dam, AR

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Denison Dam, Lake Texoma, TX and OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Denison Dam, Lake Texoma is located on the Red River at river mile 725.9, about 5 miles northwest of the town of Denison in Grayson County, Texas. This is a multi-purpose project with flood control, water supply, hydroelectric power, regulation of Red River flows, improvement of navigation, and recreation outputs. The project consists of a 17,200 foot long rolled earth-filled embankment with an uncontrolled concrete, gravity chute-type spillway and six 9x19 foot vertical lift gates. The project contains two 35,000 kW hydropower generator units. At top of power pool the lake covers 74,686 acres.

CONFERENCE FOR FY 2010: **T**: $8,740,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $8,602,000
BUDGET FOR FY 2011: **M**: $4,797,000 **O**: $5,260,000 **T**: $10,057,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $3,670,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $2,839,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $2,454,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $1,061,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $33,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: DeQueen Lake, Arkansas

AUTHORIZATION: Flood Control Act, 3 July 1958

LOCATION AND DESCRIPTION: DeQueen Lake is located on the Rolling Fork River, in Sevier County, DeQueen, Arkansas. The project was authorized for the purposes of flood damage reduction, water supply, and recreation.

CONFERENCE AMOUNT FOR FY 2010: $1,665,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $191,000
BUDGET FOR FY 2011: M: $340,000 **O**: $1,127,000 **T**: $1,467,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $898,000 – funding provides for routine operations and maintenance for flood risk management; periodic inspection of vehicle bridges; compliance with Comprehensive Evaluation of Project Datums (CEPD) requirements; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $525,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $40,000 – funding provides for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and survey and manage the pink musket mussel in accordance with the Endangered Species Act.

WS: $4,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Dierks Lake, Arkansas

AUTHORIZATION: Flood Control Act, 3 July 1958

LOCATION AND DESCRIPTION: Dierks Lake is located on the Sali ne River in Howard and Sevier Counties, Dierks, Arkansas. The project's primary purposes are flood damage reduction, water supply, and recreation.

CONFERENCE AMOUNT FOR FY 2010: $1,292,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $193,000
BUDGET FOR FY 2011: **M**: $483,000 **O**: $1,087,000 **T**: $1,570,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $995,000 – funding provides for routine operations and maintenance for flood risk management; periodic inspection of vehicle bridges; compliance with Comprehensive Evaluation of Project Datums (CEPD) requirements; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $517,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $53,000 – funding provides for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and management of endangered species.

WS: $5,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: El Dorado Lake, KS

AUTHORIZATION: Flood Control Act of 1965

LOCATION AND DESCRIPTION: El Dorado Lake is located at river mile 114.7 on the Walnut River, a tributary of the Arkansas River, about 2 miles northeast of the town of El Dorado in Butler County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project consists of a 20,850 foot long earth embankment with spillway. At conservation pool the lake covers 7,997 acres.

CONFERENCE FOR FY 2010: T: $1,132,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $153,000
BUDGET FOR FY 2011: M: $106,000 **O**: $503,000 **T**: $609,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $519,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $34,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $42,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $14,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Elk City Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Elk City Lake is located on the Elk River at river mile 8.7, about 7 miles east of the town of Elk City in Montgomery County, Kansas. This is a multi-purpose project with flood control, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 4,840 foot earth embankment with an uncontrolled spillway and 16 foot conduit and stilling basin. At conservation pool the lake covers 4,118 acres.

CONFERENCE FOR FY 2010: T: $682,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,230,000
BUDGET FOR FY 2011: M: $210,000 **O**: $830,000 **T**: $1,040,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $831,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $177,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $22,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $10,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Elk City Lake, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Estelline Springs Experimental Project, TX

AUTHORIZATION: Flood Control Act of 1966

LOCATION AND DESCRIPTION: The Estelline Springs Experimental Project is located on the Prairie Dog Town Fork of the Red River, about 0.5 miles east of the town of Estelline in Hall County, Texas. This is a single purpose project with water quality control outputs. The project consists of an earthen ring dike nine feet high and 340 feet in diameter that surrounds Estelline Springs.

CONFERENCE FOR FY 2010: **T**: $43,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: **M**: $0 **O**: $43,000 **T**: $43,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: N/A

REC: N/A

HYD: N/A

ES: $43,000 - funding provides for routine operations and maintenance at the project; water quality control; intensive wildlife management as required by WRDA 1986; monitoring of endangered and other fish and wildlife species; compliance activities associated with the National Historic Preservation Act; natural resources management; and water quality monitoring.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Eufaula Lake, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Eufaula Lake is located on the Canadian River at river mile 27.0, about 12 miles east of the town of Eufaula in McIntosh County, Oklahoma. This is a multi-purpose project with flood control, water supply, hydroelectric power, and navigation outputs. The project consists of a 3300 foot long rolled earth-filled embankment with a concrete, gravity ogee weir controlled spillway with eleven 40x32 foot tainter gates. The project contains three hydropower generator units. At conservation pool the lake covers 105,500 acres.

CONFERENCE FOR FY 2010: T: $6,291,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $6,835,000
BUDGET FOR FY 2011: M: $2,619,000 **O**: $4,613,000 **T**: $ 7,232,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $25,000 – funding provides for limited operations and maintenance of structures for navigation water releases for the McClellan-Kerr Arkansas River Navigation System.

FDR: $2,082,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,962,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $2,410,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $733,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $20,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Eufaula Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fall River Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Fall River Lake is located on the Fall River at river mile 54.2, about 4 miles northwest of the town of Fall River in Greenwood County, Kansas. This is a multi-purpose project with flood control, water quality, fish and wildlife, and supplemental water supply outputs. The project consists of a 5,455 foot long earth embankment with a gate weir and two tainter gates. At conservation pool the lake covers 2,350 acres.

CONFERENCE FOR FY 2010: **T**: $1,219,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $5,271,000
BUDGET FOR FY 2011: **M**: $468,000 **O**: $732,000 **T**: $1,200,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $852,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $310,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $38,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ferrells Bridge Dam – Lake O' the Pines, Texas

AUTHORIZATION: Flood Control Acts of 1937 and 1946, PL 75-406 and PL 79-526

LOCATION AND DESCRIPTION: Ferrells Bridge Dam – Lake O' the Pines is located on Cypress Creek in Marion, Harrison, Upshur, Morris Camp, and Titus Counties, eight miles west of the city of Jefferson, Texas. The project consists of an earthfill embankment and two conduits. Flood control storage is 587,200 acre-feet and water supply storage is 279,900 acre-feet. Thirty-four recreation areas comprise 758 acres. 2009 visitation totaled 15,023,345 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,312,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $8,671,000
BUDGET FOR FY2011: M: $1,166,000 **O**: $2,543,000 **T**: $3,709,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,733,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; replace existing elastomeric material in contraction joints and concrete posts west end; and replace existing platform on emergency spillway bridge.

REC: $1,581,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $359,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $36,000 - Funds will be used to monitor water supply and provide customer billings

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Gibson Lake, OK

AUTHORIZATION: Flood Control Act of 1941, River and Harbor Act of 1946, and the Water Resources Development Act of 1986

LOCATION AND DESCRIPTION: Fort Gibson Lake is located on the Grand (Neosho) River at river mile 7.7 about 12 miles northeast of the town of Muskogee in Mayes, Wagoner, and Cherokee Counties, Oklahoma. This is a multi-purpose project with flood control and hydroelectric power outputs. The project consists of a 2,990 foot long rolled earth-filled embankment which includes the concrete, gravity ogee weir controlled spillway and the powerhouse intake structure. The spillway is equipped with thirty 40x35 foot tainter gates, while the powerhouse contains four 11,250kW hydropower generator units. At conservation pool the lake covers 19,900 acres.

CONFERENCE FOR FY 2010: T: $11,183,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $15,007,000
BUDGET FOR FY 2011: M: $2,350,000 **O**: $3,866,000 **T**: $6,216,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,504,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,839,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $2,701,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $172,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Fort Supply Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Fort Supply Lake is located at river mile 5.5 on Wolf Creek, a tributary of the North Canadian River, about 12 miles northwest of the town of Woodward in Woodward County, Oklahoma. This is a multi-purpose project with flood control and conservation storage (water supply) outputs. The project consists of an 11,865 foot long rolled earth-filled embankment with an uncontrolled, concrete, chute-type spillway. Spillway discharges are controlled by three 7x16 foot vertical lift gates. At conservation pool the lake covers 1,820 acres.

CONFERENCE FOR FY 2010: T: $1,049,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,046,000
BUDGET FOR FY 2011: M: $460,000 **O**: $598,000 **T**: $ 1,058,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $581,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $409,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $68,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Freeport Harbor, TX

AUTHORIZATION: House Doc. 289, 93rd Cong., 2nd Sess.

LOCATION AND DESCRIPTION: This navigation project is located in the vicinity of Freeport, in Brazoria County, Texas. The project is a deep draft channel 8.5 miles in length (authorized depth of 45 feet) extending from deep water in the Gulf of Mexico through a jettied entrance channel, two turning basins up to the Upper Turning Basin.

CONFERENCE FOR FY 2010: **T**: $3,151,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: **M**: $3,538,000 **O**: $0 **T**: $3,538,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS:

N: $3,538,000 – Dredging the Entrance Channel. These funds would improve navigation performance by increasing channel availability from 0% to 75% and reliability by providing for 10 months level of service at the authorized project depth.

FDR: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Galveston Harbor and Channel, Texas.

AUTHORIZATION: House Document 121, 92nd Congress.

LOCATION AND DESCRIPTION: The project is located in the vicinity of Galveston in Galveston County, Texas. Galveston Harbor and Channel is a 14.4 mile deep draft channel (authorized depth of 45 feet) that extends from deep water in the Gulf of Mexico through jetties to Galveston Bay near Bolivar Roads. From this point, the channel portion extends up to 43rd Street in Galveston, Texas.

CONFERENCE FOR FY 2010: T: $12,445,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: T: $4,146,000
BUDGET FOR FY 2011: M: $8,441,000 **O**: $0 **T**: $8,441,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $8,441,000 – Funding provides for routine maintenance dredging within the Galveston Harbor and Channel including dredging w/upland disposal and hopper dredging. These funds would improve navigation performance by increasing channel availability from 0% to 75% and reliability by providing for 24 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gillham Lake, Arkansas

AUTHORIZATION: Flood Control Act, 3 July 1958

LOCATION AND DESCRIPTION: Gillham Lake is located on the Cossatot River, in Howard County, Gillham, Arkansas. The project's primary purposes are flood damage reduction, water supply, and recreation.

CONFERENCE AMOUNT FOR FY 2010: $1,298,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $401,000
BUDGET FOR FY 2011: **M**: $393,000 **O**: $947,000 **T**: $1,340,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $828,000 – funding provides for routine operations and maintenance for flood risk management; periodic inspection of vehicle bridges; compliance with Comprehensive Evaluation of Project Datums (CEPD) requirements; maintenance of tractor slide gates, hoists, overhead crane and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, and providing for increased efficiency and lower future repair costs.

REC: $465,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $44,000 – funding provides for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological sites; identification and protection of nesting sites; and management of endangered species.

WS: $3,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: GIWW, Channel to Victoria, TX

AUTHORIZATION: Section 3, PL 100-676 dated 17 Nov 1988

LOCATION AND DESCRIPTION: This navigation project is located in the vicinities of Seadrift and Victoria in Calhoun and Victoria Counties, Texas. The Channel to Victoria project provides a 34.8 mile shallow draft channel (12 foot authorized depth) extending from it's junction with the main channel of the Gulf Intracoastal Waterway at Mile 492 northwesterly across San Antonio Bay through a landlocked section lying east of the Guadalupe River and terminating at the turning basin near the City of Victoria. The Channel to Seadrift project provides a 2 mile shallow draft channel (12 foot authorized depth) extending from the Channel to Victoria northeasterly and terminating at the turning basin at Seadrift.

CONFERENCE FOR FY 2010: **T**: $2,152,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: **M**: $1,825,000 **O**: $0 **T**: $1,825,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,825,000 – Dredging and the curation of artifacts recovered during the new work phase. These funds would improve navigation performance by increasing channel availability from 0% to 25% and reliability by providing for 6 months level of service at the authorized project depth.

FDR: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Gulf Intracoastal Waterway, TX

AUTHORIZATION: PL 77-675 (1942) authorizing the Laguna Madre reach, and Section 101(a)(29) of WRDA '96 authorizing the work at Aransas National Wildlife Refuge (ANWR).

LOCATION AND DESCRIPTION: The project traverses the entire Texas Coast, from the Sabine River to Port Isabel, TX. The navigation portion of the Main Channel of the GIWW covers a distance of 423 miles, along with other tributaries. The authorized depth and width is generally 12' x 125'.

CONFERENCE FOR FY 2010: T: $24,752,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $31,004,000
BUDGET FOR FY 2011: M: $24,009,000 **O**: $3,783,000 **T**: $27,792,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $27,792,000 – Funding provides for routine operations and maintenance of the facilities at the Brazos River Floodgates and Colorado River Locks and Mooring facilities. Funding also provides for maintenance dredging of various reaches along the 423 mile waterway with upland disposal and beneficial use sites. These funds would improve navigation performance by increasing channel availability from 0% to 50% and reliability by providing for 9 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Granger Lake, Texas

AUTHORIZATION: Flood Control Acts of 1954 and 1962, PL 83-780 and PL 87-874

LOCATION AND DESCRIPTION: Granger Lake is located on the San Gabriel River in Williamson County, about 10 miles northeast of the city of Taylor. The project consists of a rolled earthfill dam, and controlled outlet works with two hydraulically operated gates. The conservation pool impoundment is 4,400 acres, government fee land consists of 13,602 acres and flood control storage capacity is 178.600 acre-feet. Six recreation areas comprise 1,387 acres. 2009 visitation totaled 1,260,574 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,459,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $7,263,000
BUDGET FOR FY2011: M: $581,000 **O**: $1,779,000 **T**: $2,360,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,291,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and rehab spillway under drain manhole system.

REC: $938,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $107,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $24,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Grapevine Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14

LOCATION AND DESCRIPTION: Grapevine Lake is located in Denton and Tarrant Counties, at river mile 11.7 on Denton Creek, Trinity River Basin, near the city of Grapevine, and approximately 20 miles northwest of the city of Dallas, Texas. The project consists of a rolled earthfill dam, a 500' uncontrolled concrete ogee weir spillway, and a conduit controlled by two broom-type gates. The flood control/storage capacity is 243,050 acre-feet and conservation/water supply storage is 158,900 acre-feet. Twelve recreation areas comprise 3,660 acres. 2009 visitation totaled 7,981,132 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,599,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,260,000
BUDGET FOR FY2011: M: $717,000 **O**: $2,297,000 **T**: $3,014,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,383,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; repair erosion and expand seepage collection.

REC: $1,373,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $222,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $36,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Great Salt Plains Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Great Salt Plains Lake is located on the Salt Fork of the Arkansas River at river mile 103.3 about 12 miles east of the town of Cherokee in Alfalfa County, Oklahoma. This is a multi-purpose project with flood control, conservation, recreation, and fish and wildlife outputs. The project consists of a rolled earth-filled embankment and concrete spillway having a total crest length of 6,010 feet and rising to a maximum height of 68 feet above the streambed. At top of flood control pool the lake covers 25,660 acres.

CONFERENCE FOR FY 2010: T: $330,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $246,000
BUDGET FOR FY 2011: M: $261,000 **O**: $145,000 **T**: $406,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $380,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $26,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Greers Ferry Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938, as amended by the Flood Control Act of 1941 and 1944

LOCATION AND DESCRIPTION: Greers Ferry Lake is located on the Little Red River in Cleburne and Van Buren Counties, Heber Springs, Arkansas. Greers Ferry is one of the five multiple purpose projects in the White River Basin and was constructed for the generation of hydropower and flood damage reduction.

CONFERENCE AMOUNT FOR FY 2010: $7,374,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,446,000
BUDGET FOR FY 2011: **M**: $4,354,000 **O**: $5,876,000 **T**: $10,230,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $4,724,000 – funding provides for routine operations and maintenance for flood risk management; perform stability analysis on dam; maintenance of 6 tainter gates, sluice gates, overhead crane, and emergency generator; repair and refurbish tainter gates; and replacement of deteriorated tainter gate control boxes, wiring, relays, and switches. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide increased efficiency, and lower future repair costs.

REC: $3,273,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: $1,982,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by additional revenue to the Treasury.

ES: $239,000 – funding provides for routine operations and maintenance for environmental stewardship; administration of shoreline management plan; ensure cultural, archeological and historical resources are protected; and compliance with the Endangered Species Act.

WS: $12,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Heyburn Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Heyburn Lake is located at river mile 48.6 on Polecat Creek, a tributary of the Arkansas River, about 11 miles southwest of the town of Sapulpa in Creek County, Oklahoma. This is a multi-purpose project with flood control and conservation (water supply, recreation, and fish and wildlife) outputs. The project consists of a 2,920 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 877 acres.

CONFERENCE FOR FY 2010: T: $711,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $451,000
BUDGET FOR FY 2011: M: $116,000 **O**: $487,000 **T**: $ 603,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $323,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $255,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $15,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $10,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hords Creek Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14

LOCATION AND DESCRIPTION: Hords Creek Lake is located in Coleman County, about 13 miles west of the city of Coleman, Texas. The project consists of an earthfill embankment and one conduit controlled by two gates. The water supply outlet is cast iron pipe and the controlled conduit outlet has two slide gates. Flood control storage is 16,670 acre-feet and water supply storage is 5,684 acre-feet. Three recreation areas comprise 1,215 acres. 2009 visitation totaled 3,408,642 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,525,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $577,000
BUDGET FOR FY2011: M: $430,000 **O**: $1,278,000 **T**: $1,708,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $827,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and repair hydraulic pumps for flood gates.

REC: $808,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $73,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Houston Ship Channel, TX

AUTHORIZATION: House Document 101 (30), PL 104-303

LOCATION AND DESCRIPTION: The Houston Ship Channel is a 54.0 mile long deep draft waterway which extends from Bolivar Roads near Galveston, Texas, north through Galveston Bay, the San Jacinto River, and Buffalo Bayou to a Main Turning Basin at Houston, Texas, at an authorized depth of 45 feet. The project also includes a 6.5 mile long shallow draft reach at an authorized depth of 40 feet. The Light Draft Channel extends upstream of the Main Turning Basin.

CONFERENCE FOR FY 2010: **T**: $14,315,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: **T**: $42,700,000
BUDGET FOR FY 2011: **M**: $17,978,000 **O**: $0 **T**: $17,978,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $17,978,000 – Funding provides for maintenance dredging of various reaches. These funds would improve navigation performance by increasing channel availability from 0% to 75% and reliability by providing for 24 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hugo Lake, OK

AUTHORIZATION: Flood Control Act of 1946

LOCATION AND DESCRIPTION: Hugo Lake is located on the Kiamichi River at river mile 17.6, about 7 miles east of the town of Hugo in Choctaw County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 10,200 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with six 40x50 foot gates. At conservation pool the lake covers 13,144 acres.

CONFERENCE FOR FY 2010: T: $1,652,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $853,000
BUDGET FOR FY 2011: M: $133,000 **O**: $1,615,000 **T**: $1,748,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $879,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $807,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $42,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $20,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Hulah Lake, OK

AUTHORIZATION: Flood Control Act of 1936

LOCATION AND DESCRIPTION: Hulah Lake is located at river mile 96.2 on the Caney River, a tributary of the Verdigris River, about 15 miles northwest of the town of Bartlesville in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, low flow regulation, and conservation outputs. The project consists of a 10,200 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with ten 40x25 foot tainter gates. At conservation pool the lake covers 3,120 acres.

CONFERENCE FOR FY 2010: T: $1,993,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $621,000
BUDGET FOR FY 2011: M: $497,000 **O**: $404,000 **T**: $901,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $847,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $22,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $20,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $12,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Jim Chapman Lake, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780; amended by Flood Control Act of 1955, PL 84-99

LOCATION AND DESCRIPTION: Jim Chapman Lake is located on the South Sulphur River in Delta and Hopkins Counties, about four miles southeast of the city of Cooper, Texas. The project consists of an earthfill embankment, an uncontrolled spillway, and an outlet works tower. Five recreation areas comprise 2,977 acres. 2009 visitation totaled 8,286,934 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,633,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,457,000
BUDGET FOR FY2011: M: $807,000 **O**: $1,129,000 **T**: $1,939,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,236,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and repair deteriorated and cracked embankment toe ditch.

REC: $166,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $473,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $64,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Joe Pool Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1965, PL 89-298

LOCATION AND DESCRIPTION: Joe Pool Lake is located in Dallas, Tarrant and Ellis Counties, about 10 miles southwest of the city of Dallas, Texas. The project consists of an earthfill dam with uncontrolled concrete spillway. Total storage capacity is 304, 500 acre-feet (flood control 127,200 acre-feet, water supply 142,900 acre-feet, and sediment reserve 38,000 acre-feet). There are five recreation areas comprising 3,730 acres. 2009 visitation totaled 7,588,455 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,042,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,285,000
BUDGET FOR FY2011: M: $304,000 **O**: $790,000 **T**: $1,094,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $769,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $69,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $234,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $22,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: John Redmond Dam and Reservoir, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: John Redmond Dam and Reservoir is located on the Grand (Neosho) River at river mile 343.7, about 3 miles northwest of the town of Burlington in Coffey County, Kansas. This is a multi-purpose project with flood control, water supply, water quality control, and recreation outputs. The project is additionally operated for wildlife objectives. The project consists of a 21,790 foot long structure made up of an earth-filled embankment and a gated ogee weir, concrete spillway with fourteen 40x35 foot high tainter gates located in the left abutment. At conservation pool the lake covers 8,084 acres.

CONFERENCE FOR FY 2010: **T**: $3,502,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $5,084,000
BUDGET FOR FY 2011: **M**: $768,000 **O**: $992,000 **T**: $1,760,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,411,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $316,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $15,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $18,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: John Redmond Dam and Reservoir, KS

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Kaw Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Kaw Lake is located on the Arkansas River at river mile 653.7, about 8 miles east of the town of Ponca City in Kay County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, hydropower, recreation, and fish and wildlife outputs. The project consists of a 9,466 foot long rolled earth-filled embankment with a gate controlled, concrete gravity ogee weir spillway with eight 50x47 foot tainter gates. A single 37 kW generator operated by run of the river is located at the project. At conservation pool the lake covers 16,750 acres.

CONFERENCE FOR FY 2010: **T**: $2,614,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,909,000
BUDGET FOR FY 2011: **M**: $513,000 **O**: $1,608,000 **T**: $ 2,121,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1.022,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $852,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $226,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $21,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Keystone Lake, OK

AUTHORIZATION: River and Harbor Act of 1950

LOCATION AND DESCRIPTION: Keystone Lake is located on the Arkansas River at river mile 538.8, about 15 miles west of Tulsa in Tulsa County, Oklahoma. This is a multi-purpose project with flood control, water supply, hydroelectric power, navigation, and fish and wildlife outputs. The project consists of a 4,600 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with eighteen 40x35 foot tainter gates. The project contains two 35,000 kW hydropower generator units. At conservation pool the lake covers 23,610 acres.

CONFERENCE FOR FY 2010: T: $6,602,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,931,000
BUDGET FOR FY 2011: M: $1,853,000 **O**: $3,153,000 **T**: $5,006,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $56,000 - funding provides for limited operations and maintenance of structures for navigation water releases for the McClellan-Kerr Arkansas River Navigation System.

FDR: $1,531,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,057,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $1,988,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $364,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $10,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Keystone Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lake Kemp, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Lake Kemp is located on the Wichita River at river mile 126.7, about 40 miles southwest of the town of Wichita Falls in Wichita County, Texas. This is a multi-purpose project with flood control and conservation outputs. The project consists of a rolled earth-filled embankment and spillway having a total length of 8,890 feet and rising to a maximum height of 115 feet above the streambed. At top of flood control pool the lake covers 15,590 acres.

CONFERENCE FOR FY 2010: T: $311,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $156,000 **O**: $311,000 **T**: $467,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $467,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Lake Kemp, TX

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lavon Lake, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14; and Flood Control Acts of 1946 and 1962, PL 79-526 and PL 87-874

LOCATION AND DESCRIPTION: Lavon Lake is located in Collins County, on the East Fork of the Trinity River, about 22 miles northeast of the city of Dallas, Texas. The project consists of an earth embankment, a gate-controlled concrete spillway with twelve tainter gates, and five gate controlled conduits. Flood control storage is 291,600 acre-feet and water supply storage is 443,800 acre-feet. Nineteen recreation areas comprise 2,834 acres. 2009 visitation totaled 5,238,147 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,323,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,390,000
BUDGET FOR FY2011: M: $816,000 **O**: $2,319,000 **T**: $3,135,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,220,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,696,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $193,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $26,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Lewisville Dam, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14

LOCATION AND DESCRIPTION: Lewisville Dam is located in Denton County on the Elm Fork of the Trinity River, 30 river miles above its confluence with the Trinity River and 22 miles northwest of the city of Dallas, Texas. The project consists of a rolled earthfill dam, 32,888 feet in length, with a 16-foot diameter flood conduit, controlled by three (6.5-foot x 13-foot) broom-type gates and a 560-foot concrete spillway. Flood control storage capacity is 340,800 acre-feet and conservation/water supply storage is 598, 400 acre-feet. Lewisville Dam has twenty-five recreation areas comprising 4,014 acres. 2009 visitation totaled 17,943,023 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,373,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY2011: M: $819,000 **O**: $2,723,000 **T**: $3,542,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,833,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,434,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $233,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $42,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Marion Lake, KS

AUTHORIZATION: Flood Control Act of 1950

LOCATION AND DESCRIPTION: Marion Lake is located on the Cottonwood River at river mile 126.7, about 3 miles northwest of the town of Marion in Marion County, Kansas. This is a multipurpose project with flood control, water supply, water quality, and recreation outputs. The project consists of an 8,375 foot long rolled earth-filled embankment with a gate-controlled, concrete gravity ogee weir containing three 40x40 foot tainter gates. At conservation pool the lake covers 6,210 acres.

CONFERENCE FOR FY 2010: T $ 1,730,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $5,698,000
BUDGET FOR FY 2011: M: $226,000 **O**: $1,387,000 **T**: $1,613,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $803,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $745,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $50,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $15,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Matagorda Ship Channel, TX

AUTHORIZATION: House Document 388, 84th Congress, 2nd Session

LOCATION AND DESCRIPTION: The project consists of a 38' deep X 300' wide entrance channel through a jettied entrance and a 36' draft X 200' wide main channel that extends 25.2 miles and terminates at a 1000' X 1000' wide turning basin at Point Comfort. The navigation project is located in the vicinities of Port O'Connor, Port Lavaca, and Point Comfort in Matagorda, Calhoun Counties, Texas.

CONFERENCE FOR FY 2010: **T**: $4,397,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: **M**: $2,774,000 **O**: $250,000 **T**: $3,024,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,024,000 – Dredging to project depth and finishing the Jetty Evaluation Study. These funds would improve navigation performance by increasing channel availability from 0% to 25% and reliability by providing for 3 months level of service at the authorized project depth.

FDR: NA

REC: NA

HYD: NA

ES: NA

WS: NA

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System (MKARNS), Arkansas

AUTHORIZATION: River and Harbors Act of 1946

LOCATION AND DESCRIPTION: McClellan-Kerr Arkansas River Navigation System is a 445-mile long navigation system (depth of 9 feet) that includes the Arkansas, White and Verdigris Rivers.

CONFERENCE AMOUNT FOR FY 2010: $39,027,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $58,758,000
BUDGET FOR FY 2011: M: $14,354,000 **O**: $19,199,000 **T**: $33,553,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $28,115,000 – funding provides for routine operations and maintenance for navigation required for pool regulation and lock operations; critical fleet maintenance support; perform failure diagnostics and repairs; perform dam safety monitoring; channel maintenance to include dredging; and limited repair of structures; lock dewatering; and procure and install MCC panels and feeder wiring. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FDR: N/A

REC: $5,058,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $380,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and control of invasive species; managing efforts to preserve historic, cultural and natural aspects in accordance with the National Environmental Policy Act; habitat sustainability and monitoring of interior least terns; and prescribed burning.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: McClellan-Kerr Arkansas River Navigation System, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: The McClellan-Kerr Arkansas River Navigation System provides a route from the Mississippi River through Arkansas and Oklahoma to the head of navigation at the Port of Catoosa near Tulsa, Oklahoma. The navigation channel has a minimum depth of 9 feet and minimum widths of 250 feet on the Arkansas River and 150 feet on the Verdigris River. Total length of the Tulsa District portion of the system is 137 navigation miles. The three locks on the project have chambers that are 110x600 feet in size with 20-21 foot normal lifts.

CONFERENCE FOR FY 2010: T: $5,866,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $12,029,000
BUDGET FOR FY 2011: M: $1,932,000 **O**: $3,862,000 **T**: $5,794,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $5,400,000 - funding provides for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FDR: N/A

REC: $354,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: N/A

ES: $40,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Millwood Lake, Arkansas

AUTHORIZATION: Flood Control Act, 3 July 1958, as a modification to the Flood Control Act, 24 July 1946

LOCATION AND DESCRIPTION: Millwood Lake is located on the Little River, Ashdown, Arkansas. The lake was constructed for the primary purpose of flood damage reduction.

CONFERENCE AMOUNT FOR FY 2010: $4,868,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $184,000
BUDGET FOR FY 2011: M: $2,916,000 **O:** $1,886,000 **T:** $4,802,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $3,858,000 – funding provides for routine operations and maintenance for flood risk management; repair and seal bridge deck and replace approach guardrails; periodic inspection of vehicular and pedestrian bridges; repair Okay Levee; draft IRRMP; replace minimal flow release pipe and valve; provide safe and secure access to hoist houses; repair dam slope failures and sinkholes; and comply with Comprehensive Evaluation of Project Datums (CEPD) requirements. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide for increased efficiency, and lower future repair costs.

REC: $817,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $122,000 – funding provides for routine operations and maintenance for environmental stewardship; complete prescribed burning; stump grinding; wildlife habitat creation plots; encroachment detection and mitigation; boundary inspection and maintenance; monitoring and protection of known archeological resources; and identification and protection of endangered species in accordance with the Endangered Species Act.

WS: $5,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Navarro Mills Lake, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Navarro Mills Lake is located in Navarro County on Richland Creek, Trinity River Basin, and is 16 miles southwest of the city of Corsicana, Texas. The project consists of an earthfill dam, a controlled spillway using six tainter gates, and two conduits controlled by slide gates. Flood storage capacity is 149,200 acre-feet. Six recreation areas comprise 1,195 acres. 2009 visitation totaled 7,022,129 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,961,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $10,375,000
BUDGET FOR FY2011: M: $760,000_**O**: $2,007,000 **T**: $2,767,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,475,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,164,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $89,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $39,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Nimrod Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: The project is located in Yell and Perry Counties, Arkansas. Nimrod Lake is located on the Fourche LaFave River, Plainview, Arkansas. The primary purpose of the project is flood damage reduction.

CONFERENCE AMOUNT FOR FY 2010: $2,175,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
B UDGET FOR FY 2011: M: $329,000 **O**: $1,628,000 **T**: $1,957,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,154,000 – funding provides for routine operations and maintenance for flood risk management of the dam, reservoir, service facilities, and permanent operating equipment; clean spillway foundation drains and hone risers; and maintenance of 2 Howell-Bunger valves and 7 sluice (slide) gates, hoists, overhead crane, and emergency generator. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide for increased efficiency, and lower future repair costs.

REC: $565,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; environmental compliance; and water management of water control data systems.

HYD: N/A

ES: $235,000 – funding provides for routine operations and maintenance for environmental stewardship; sustain existing forest, fish, wildlife and other natural resources; ensure historical, archeological and cultural resources are protected from vandalism; and management and operations to support special status species and endangered species in accordance with the Endangered Species Act.

WS: $3,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Norfork Lake, Arkansas

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Norfork Lake is located in Baxter County, Arkansas and Ozark County, Missouri. Norfork Lake is one of the five multiple-purpose projects in the White River Basin constructed for flood damage reduction and the generation of hydropower.

CONFERENCE AMOUNT FOR FY 2010: $5,433,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,487,000
BUDGET FOR FY 2011: M: $2,148,000 **O**: $4,076,000 **T**: $6,224,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,980,000 – funding provides for routine operations and maintenance for flood risk management; perform stability analysis on dam; maintenance of 12 tainter gates, sluice gates, overhead crane, and emergency generator; repair and seal cracks and spalls; resurface scaled areas in concrete roadway; replace roadway approach guardrails; and replace tainter gate hoist chains. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide for increased efficiency, and lower future repair costs.

REC: $1,359,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: $1,651,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: $233,000 – funding provides for routine operations and maintenance for environmental stewardship; provides protection, monitoring and management of project natural resources; complies with the Endangered Species Act; complies with the statutory mandates of the Forest Cover Act; development of resource management plans; and complies with Archeological Resources Protection Act.

WS: $1,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: North San Gabriel Dam and Lake Georgetown, Texas

AUTHORIZATION: Flood Control Acts of 1954 and 1962, PL 83-780 and PL 87-874

LOCATION AND DESCRIPTION: The North San Gabriel Dam and Lake Georgetown are located on the North Fork of the San Gabriel River in Williamson County, about 3.5 miles west of the city of Georgetown, Texas. The project consists of a rockfill dam with impervious earth core. Flood control outlet works include two hydraulically operated gates. Conservation/water supply storage is 29,200 acre-feet and flood control storage capacity is 93,700 acre-feet. Five recreation areas comprise 1,638 acres. 2009 visitation totaled 3,298,586 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,264,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,125,000
BUDGET FOR FY2011: M: $724,000 **O**: $1,812,000 **T**: $2,536,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,218,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,096,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $196,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $26,000 - Funds will be used to monitor water supply and provide customer billings

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: O. C. Fisher Dam and Lake, Texas

AUTHORIZATION: Flood Control Act of 1941 and 1944; PL 77-228 and PL 78-534

LOCATION AND DESCRIPTION: O. C. Fisher Dam and Lake is located in Tom Green County, on the North Concho River, near the city of San Angelo, Texas. The project consists of an earth embankment, an uncontrolled spillway, gate-controlled intakes, and two flood control conduits. Flood control storage is 276,900 acre-feet and water supply storage is 79,500 acre-feet. Seven recreation areas comprise 4,710 acres. 2009 visitation totaled 456,379 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,106,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY2011: M: $773,000 **O**: $600,000 **T**: $1,373,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,207,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $78,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $61,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $27,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Oologah Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Oologah Lake is located on the Verdigris River at river mile 90.2, about 2 miles southeast of the town of Oologah in Rogers County, Oklahoma. This is a multi-purpose project with flood control, water supply, navigation, recreation, and fish and wildlife outputs. The project consists of a 4,000 foot long rolled earth-filled embankment with a gate controlled, modified concrete gravity ogee weir spillway with seven 40x21 foot high radial gates. At conservation pool the lake covers 31,043 acres.

CONFERENCE FOR FY 2010: **T**: $3,902,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $2,922,000
BUDGET FOR FY 2011: **M**: $558,000 **O**: $1,531,000 **T**: $ 2,089,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $942,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,092,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $40,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $15,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Optima Lake, OK

AUTHORIZATION: Flood Control Act of 1936, as amended by the Flood Control Act of 1950

LOCATION AND DESCRIPTION: Optima Lake is located on the North Canadian River at river mile 623.2, about 4.5 miles northeast of the town of Hardesty in Texas County, Oklahoma. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a 16,900 foot long rolled earth-filled embankment with an uncontrolled emergency spillway. At conservation pool the lake covers 5,340 acres.

CONFERENCE FOR FY 2010: T: $208,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $225,000
BUDGET FOR FY 2011: M: $116,000 **O**: $81,000 **T**: $197,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $184,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $13,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ozark-Jeta Taylor Lock & Dam, Arkansas

AUTHORIZATION: River and Harbors Act of 1946

LOCATION AND DESCRIPTION: This project is located in Franklin, Johnson, and Crawford Counties, Arkansas. Ozark-Jeta Taylor Lock and Dam is located on the McClellan-Kerr Arkansas River Navigation System and the project purposes include recreation, hydropower, and navigation.

CONFERENCE AMOUNT FOR FY 2010: $5,441,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,370,000
BUDGET FOR FY 2011: **M:** $1,385,000 **O:** $4,100,000 **T:** $5,485,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,617,000 – funding provides for routine operations and maintenance for navigation required for pool regulation and lock operations; perform failure diagnostics and repairs; perform dam safety monitoring; routine joint operations of powerplant and dam components; channel maintenance to include dredging; and limited repair of structures. These funds would improve navigation performance by increasing the availability and reliability of the system and provide for decreased future repair costs due to continual deferred maintenance.

FDR: N/A

REC: $1,642,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; and water management of water control data systems.

HYD: $2,111,000 – funding provides for routine operations and maintenance for hydropower generations and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for increased revenue to the Treasury.

ES: $115,000 – funding provides for routine operations and maintenance for environmental stewardship; monitoring and protection of known archeological sites; compliance with the Endangered Species Act; identification and protection of nesting sites; habitat management and compliance; outgrant compliance; utilization inspections; and management activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pat Mayse Lake, TX

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pat Mayse Lake is located at river mile 4.6 on Sanders Creek, a tributary of the Red River, about 12 miles north of the town of Paris in Lamar County, Texas. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of an 8,780 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 5,940 acres.

CONFERENCE FOR FY 2010: T: $1,148,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $64,000 **O**: $928,000 T: $ 992,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $476,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $490,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: N/A

ES: $10,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $16,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pearson-Skubitz Big Hill Lake, KS

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Pearson-Skubitz Big Hill Lake is located at river mile 33.3 on Big Hill Creek, a tributary of the Verdigris River, about 4.5 miles east of the town of Cherryvale in Labette County, Kansas. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a rolled earth-filled embankment that is 3,902 feet long with a broad crested weir and two drop inlet structures. At conservation pool the lake covers 1,240 acres.

CONFERENCE FOR FY 2010: T: $1,399,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,972,000
BUDGET FOR FY 2011: M: $265,000 **O**: $1,067,000 **T**: $1,332,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $585,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $703,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and break-down maintenance.

HYD: N/A

ES: $31,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $13,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pensacola Reservoir, Lake of the Cherokees, OK

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Pensacola Reservoir, Lake of the Cherokees, is located on the Grand (Neosho) River at river mile 77.0 about 13 miles southeast of the town of Vinita in Mayes and Delaware Counties, Oklahoma. This is a multi-purpose project with hydroelectric power and flood control outputs. The project consists of a concrete, multiple-arch dam with gated spillways. The total length of the dam and spillways is 6,565 feet. The main spillway is equipped with twenty-one 36x25 foot tainter gates, while the two east spillways are equipped with twenty-one 37x15 foot tainter gates. A total of six 20,000 kW power generating units are located within the structure. At power pool the lake covers 46,500 acres.

CONFERENCE FOR FY 2010: T: $108,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY 2011: M: $67,000 **O**: $110,000 **T**: $167,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $167,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Pine Creek Lake, OK

AUTHORIZATION: Flood Control Act of 1958

LOCATION AND DESCRIPTION: Pine Creek Lake is located on the Little River at river mile 145.3, about 5 miles northwest of the town of Wright City in McCurtain County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality, fish and wildlife, and recreation outputs. The project consists of a 7,712 foot long rolled earth-filled embankment with an uncontrolled, gravity ogee weir spillway. At conservation pool the lake covers 3,750 acres.

CONFERENCE FOR FY 2010: T: $1,213,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,971,000
BUDGET FOR FY 2011: M: $43,000 **O**: $989,000 **T**: $ 1,032,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $603,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $391,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $25,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $13,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Proctor Lake, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Proctor Lake is located in Comanche County on the Leon River, about eight miles northeast of the city of Comanche, Texas. The project consists of an earthfill dam with concrete spillway, which is controlled by eleven tainter gates and two low flow conduits. Flood control storage is 314,800 acre-feet and water supply storage is 60,524 acre-feet. Four recreation areas comprise 1,210 acres. 2009 visitation totaled 2,359,953 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,209,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $8,735,000
BUDGET FOR FY2011: M: $416,000 **O**: $1,920,000 **T**: $2,336,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,180,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and repair and install additional piezometers.

REC: $1,044,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $75,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $37,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Ray Roberts Lake, Texas

AUTHORIZATION: Flood Control Act of 1965, PL 89-298

LOCATION AND DESCRIPTION: Ray Roberts Lake is located in Denton, Cook and Grayson Counties, near the city of Denton, Texas. The project consists of an earthfill dam, an uncontrolled spillway, and a gated conduit through the dam with two sluice gates. Flood control storage capacity is 52,400 acre-feet. Ten recreation areas comprise 3,810 acres. 2009 visitation totaled 24,492,783 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,258,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $800,000
BUDGET FOR FY2011: M: $549,000 **O**: $976,000 **T**: $1,525,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,226,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $87,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $190,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $22,000 - Funds will be used to monitor water supply and provide customer billings

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Robert S. Kerr Lock and Dam and Reservoir, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Robert S. Kerr Lock and Dam and Reservoir is located on the Arkansas River at navigation mile 336.2, about 8 miles south of the town of Sallisaw in LeFlore County, Oklahoma. This is a multi-purpose project with navigation, hydroelectric power, and recreation outputs. The project consists of a 7,230 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with eighteen 50x44 foot tainter gates. The lock is a single-lift Ohio River type with a 110x600 foot long chamber and a normal lift of 48 feet. The project contains four 27,500 kW hydropower generator units. At top of power pool the lake covers 43,796 acres.

CONFERENCE FOR FY 2010: T: $8,022,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,357,000
BUDGET FOR FY 2011: M: $3,729,000 **O**: $3,875,000 **T**: $ 7,604,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $3,572,000 - funding provides for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FDR: N/A

REC: $477,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $3,371,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $184,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sabine-Neches Waterway, TX

AUTHORIZATION: House Document 553, 87th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Sabine-Neches Waterway is a 79 mile deep draft ship channel which extends from the 42-foot contour in the Gulf of Mexico through a jettied channel to Port Arthur, to Beaumont via the Neches River Channel, and to Orange via the north part of Sabine Lake and continues via the Sabine River Channel. The project consists of an improved channel 40 feet deep with varying widths and is located in the vicinities of Beaumont, Port Arthur, Orange, and Sabine Pass in Jefferson and Orange Counties, Texas, and Cameron and Calcasieu Parishes, Louisiana.

CONFERENCE FOR FY 2010: **T**: $12,733,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: **T**: $23,500,000
BUDGET FOR FY 2011: **M**: $13,426,000 **O**: $904,000 **T**: $14,330,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $14,330,000 – Funding provides for routine operations and maintenance of the facilities at the Neches River Saltwater Barrier facilities. Funding also provides for maintenance dredging of various reaches along the Sabine Neches Water Way complex with upland and hopper disposal. These funds would improve navigation performance by increasing channel availability from 0% to 75% and reliability by providing for 10 months level of service at the authorized project depth.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sam Rayburn Dam and Reservoir, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945 and 1948; PL 79-14 and PL 80-858

LOCATION AND DESCRIPTION: The Sam Rayburn Dam and Reservoir project is located in Angelina, San Augustine, Sabine, Nacogdoches, and Jasper Counties, on the Angelina River, about ten miles northwest of the city of Jasper, Texas. Features of the dam include: an earth embankment, combined concrete power intake and flood control outlet works, a labyrinth weir spillway, and two gate controlled conduits. Flood control storage capacity is 1,099,500 acre-feet, power pool storage is 1,446,500 acre-feet, and water supply storage is 43,000 acre-feet. Twenty-eight recreation areas comprise 3,151 acres. 2009 visitation totaled 13,865,107 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $5,937,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $5,977,000
BUDGET FOR FY2011: **M**: $1,794,000 **O**: $4,602,000 **T**: $6,396,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,522,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and initiate repair of erosion in spillway channel and redesign road.

Rec: $1,720,000 - Funds will be used to operate and maintain parks and other public use areas.

Hydro: $2,703,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: $416,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $35,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Sardis Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Sardis Lake is located at river mile 2.8 on Jackfork Creek, a tributary of the Kiamichi River, about 2.5 miles north of the town of Clayton in Pushmataha County, Oklahoma. This is a multi-purpose project with flood control, water supply, recreation, and fish and wildlife outputs. The project consists of a 14,138 foot long rolled earth-filled embankment with an uncontrolled spillway and a gate tower with two 4x12 foot wheel gates. At conservation pool the lake covers 13,610 acres.

CONFERENCE FOR FY 2010: **T**: $1,192,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,275,000
BUDGET FOR FY 2011: **M**: $115,000 **O**: $1,015,000 **T**: $ 1,130,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $740,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $271,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $93,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $26,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

Division: SWD District: SWT Project Name: Sardis Lake, OK

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Skiatook Lake, OK

AUTHORIZATION: Flood Control Act of 1962

LOCATION AND DESCRIPTION: Skiatook Lake is located at river mile 14.3 on Hominy Creek, a tributary of Bird Creek, about 5 miles west of the town of Skiatook in Osage County, Oklahoma. This is a multi-purpose project with flood control, water supply, water quality control, recreation, and fish and wildlife outputs. The project consists of a 3,590 foot long rolled earth-filled embankment with an uncontrolled spillway and a gate tower with two 4x10 foot gates. At conservation pool the lake covers 10,190 acres.

CONFERENCE FOR FY 2010: T: $855,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $ 1,223,000
BUDGET FOR FY 2011: M: $242,000 **O**: $1,223,000 **T**: $1,465,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $617,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $804,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $32,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $12,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Somerville Lake, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Somerville Lake is located in Burleson, Lee and Washington Counties, on Yegua Creek, about two miles south of the city of Somerville, Texas. The project consists of an earthfill dam, a dike, an uncontrolled spillway, and one gate controlled outlet with gated conduit. Flood control storage capacity is 347,400 acre-feet and conservation/water supply storage is 158,900 acre-feet. Eleven recreation areas comprise 3,599 acres. 2009 visitation totaled 14,928,621 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,199,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $8,943,000
BUDGET FOR FY2011: M: $580,000 **O**: $2,712,000 **T**: $3,292,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,494,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; replace vent tube in right gate valve; and repair/replace damaged seals on flood gate #2.

REC: $1,572,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $206,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $20,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Stillhouse Hollow Dam, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Stillhouse Hollow Lake is located in Bell County on the Lampasas River, 16 river miles upstream from its confluence with the Little River, and five miles southwest of the city of Belton, Texas. The project consists of an earthfill flood control dam, a dike section, and an uncontrolled spillway. Flood control storage capacity is 394,700 acre-feet and conservation/water supply storage is 232,000 acre-feet. Controlled flood releases are accomplished through two hydraulically operated floodgates. Seven recreation areas comprise 2,089 acres. 2009 visitation totaled 874,098 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $1,992,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $583,000
BUDGET FOR FY2011: M: $391,000 **O**: $1,759,000 **T**: $2,150,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $774,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,150,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $202,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $24,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Table Rock Lake, Missouri & Arkansas

AUTHORIZATION: Flood Control Act of 1938, as amende d by the Flood Control Act of 1941 and 1944

LOCATION AND DESCRIPTION: Table Rock Lake is located in Branson, Missouri and is one of five multiple-purpose projects within the White River Basin. The primary purpose of the lake is power generation.

CONFERENCE AMOUNT FOR FY 2010: $7,175,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $11,744,000
BUDGET FOR FY 2011: M: $685,000 **O**: $7,608,000 **T**: $8,293,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,758,000 – funding provides for routine operations and maintenance for flood risk management; repair and seal expansion joints in dam and bridge roadway; grout stone protection in auxiliary spillway; maintenance of tainter gates, sluice gates and overhead crane; and compliance with Comprehensive Evaluation of Project Datum (CEPD) requirements. These funds would improve flood risk management performance by reducing the risk of failure, flooding, loss of life, environmental damage, provide increased efficiency, and lower future repair costs.

REC: $2,314,000 – funding provides for routine operations and maintenance for recreation; implementation of law enforcement agreements; perform water management analysis (control and quality); real estate management; and environmental compliance; water management of water control data systems; and operation and maintenance of a visitor center.

HYD: $3,172,000 – funding provides for routine operations and maintenance for hydropower generation and powerplant equipment; routine operations and maintenance of joint operations of powerplant and dam components; encroachment resolutions; and compliance with NERC/FERC reliability standards. These funds would improve hydropower performance by increasing unit availability, thus reducing long-term forced outages, and would provide for additional revenue to the Treasury.

ES: $1,046,000 – funding provides for routine operations and maintenance for environmental stewardship; management of an extensive shoreline program; compliance with archeological mandates; compliance with the Endangered Species Act; regulate permits in regards to dock inspections and placement; and maintain the fee take line boundary.

WS: $3,000 – funding provides for routine operations and maintenance for water supply, to include monitoring water usage, billing and payment issues, and managing current contracts.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Tenkiller Ferry Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Tenkiller Ferry Lake is located on the Illinois River at river mile 12.8, about 22 miles southeast of the town of Muskogee in Cherokee and Sequoyah Counties, Oklahoma. This is a multi-purpose project with flood control and hydroelectric power outputs. The project consists of a 3,000 foot long rolled earth-filled embankment with a concrete, gravity controlled spillway with ten 50x25 foot tainter gates. The project contains two 19,550 kW hydropower generator units. At conservation pool the lake covers 12,900 acres.

CONFERENCE FOR FY 2010: T: $6,296,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,883,000
BUDGET FOR FY 2011: M: $1,489,000 **O**: $2,970,000 **T**: $ 4,459,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,024,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $1,734,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $1,604,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $87,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $10,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Texas City Ship Channel, TX

AUTHORIZATION: House Document 427, 86th Congress, 2nd Session

LOCATION AND DESCRIPTION: The Texas City Ship Channel is an existing 40 ft channel that extends 9.4 miles from intersection with the Galveston Entrance Channel to the Port of Texas City. The construction project to deepen ship channel to 45-foot was initiated in January 2009 with the deepening of the Main Turning Basin.

CONFERENCE FOR FY 2010: T: $3,801,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $3,600,000
BUDGET FOR FY 2011: M: $1,436,000 **O**: $0 **T**: $1,436,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $1,436,000 –Prepare plans and specs for FY12 maintenance dredging of the main channel and turning basin and perform Disposal Area Management Practices (DAMP) activities at Placement Area 5/6. The DAMP work will maximize the life of the placement area and facilitate levee construction in preparation for the FY12 dredging Main Channel, resulting in improved navigation performance by increasing channel availability and reliability.

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Texas Water Allocation Assessment

AUTHORIZATION: Flood Control Act of 1970, Section 216, PL 91-611

LOCATION AND DESCRIPTION: The study area includes the state of Texas. The purpose of the study is to identify potential opportunities for the Corps to assist the state in meeting future water needs through immediate technical assistance, and/or through initiation of studies leading to possible implementation of cost-shared water resources projects.

CONFERENCE AMOUNT FOR FY2010: T: $1,000,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY2011: M: $0 **O**: $100,000 **T**: $100,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: N/A

REC: N/A

HYD: N/A

ES: N/A

WS: $100,000 - Funds will be used to continue support of state water planning initiatives currently underway, including gain/loss studies on the Guadalupe and Upper Brazos Rivers, and reservoir capacity studies in Texas.

OTHER INFORMATION: Studies conducted under the TWAA program include hydrologic and hydraulic modeling, ground- and surface-water modeling, in-stream flow analyses, reservoir system assessments, reservoir yield studies, water-rights analysis modeling, reallocation guidance, basin studies, environmental assessments, hydrographic surveys, and obtaining digital orthophotos and digital elevation models.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Toronto Lake, KS

AUTHORIZATION: Flood Control Act of 1941

LOCATION AND DESCRIPTION: Toronto Lake is located on the Verdigris River at river mile 271.5, about 4 miles southeast of the town of Toronto in Woodson County, Kansas. This is a multi-purpose project with flood control, water supply, water quality, fish and wildlife, and recreation outputs. The project consists of a rolled impervious and random earth-filled embankment that is 4,712 feet long with a gate-controlled, concrete, gravity, ogee weir with eight 40x25 foot tainter gates. At conservation pool the lake covers 2,660 acres.

CONFERENCE FOR FY 2010: **T**: $3,347,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $4,465,000
BUDGET FOR FY 2011: **M**: $309,000 **O**: $343,000 **T**: $652,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $616,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $14,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $13,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $9,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Town Bluff Dam, B.A.Steinhagen Lake, and the Robert Douglas Willis Hydropower Project, Texas

AUTHORIZATION: Rivers and Harbors Act of 1945, PL 79-14

LOCATION AND DESCRIPTION: Town Bluff Dam, B. A. Steinhagen Lake and the Robert Douglas Willis Hydropower Project are located in Tyler and Jasper Counties, on the Neches River, one-half mile from the city of Town Bluff, Texas. The project consists of an earthfill dam (6,698 feet long and 45 feet high) which serves as an uncontrolled spillway by being covered with six inches of reinforced concrete. The gated spillway has six (40-foot x 35-foot gates) and two (4-foot x 6-foot) gate-controlled conduit outlet facilities. Town Bluff serves as a re-regulating dam for Sam Rayburn power generation water releases. Lower Neches Valley Authority (LNVA) is permitted to make withdrawals not to exceed 2,000 CFS from Town Bluff. The lake has ten recreation areas comprising 2,185 acres. 2009 visitation totaled 2,780,404 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $2,381,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $667,000
BUDGET FOR FY2011: M: $752,000 **O**: $1,914,000 **T**: $2,666,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,261,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $672,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: $517,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: $216,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Waco Lake, Texas

AUTHORIZATION: Flood Control Act of 1954, PL 83-780

LOCATION AND DESCRIPTION: Waco Lake is located in McLennan County on the Bosque River, 4.6 miles above its confluence with the Brazos River and two miles west of Waco, Texas. The project consists of a rolled earthfill dam 24,618 feet long and 140 feet high, and a spillway 560 feet long controlled by fourteen (40-foot X 35-foot) tainter gates. One 20-foot diameter conduit outlet works is controlled by three (6-foot 8-inch x 20 foot) broom-type tractor sluice gates. Flood control storage capacity is 573,300 acre-feet and conservation/water supply storage is 135,700 acre-feet. Eleven recreation areas comprise 3,599 acres. 2009 visitation totaled 2,651,000 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,711,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $0
BUDGET FOR FY2011: M: $609,000 **O**: $2,522,000 **T**: $3,131,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,549,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities; and replace emergency low flow bulkheads.

REC: $1,379,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $181,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $22,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wallisville Lake, TX

AUTHORIZATION: Rivers and Harbors Acts of 1945, 1946, and 1962, and the Supplemental Appropriations Act of 1983 (PL 98-63)

LOCATION AND DESCRIPTION: Wallisville Lake is a multiple purpose project built on the Trinity River to prevent salinity intrusion and provide water supply, recreation, navigation, and fish and wildlife enhancements. The project includes approximately 8 miles of earthen dam and an overflow spillway with a tainter gate assembly, and an 84 X 600 feet navigation lock with a sill depth of 16 feet for commerce and pleasure craft use. Construction initially began in the late 1960s but was stopped due to environmental concerns. Modifications resulted in a saltwater barrier project, with no reservoir pools, to emulate pre-project conditions as closely as possible. Construction resumed in 1996 and was completed in 1999.

CONFERENCE FOR FY 2010: T: $2,009,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: T: $0
BUDGET FOR FY 2011: M: $875,000 **O**: $1,300,000 **T**: $2,175,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,175,000 –Activities include labor (district and field) and non-labor (field) costs for operating the project, implementing the stream gauging and water control bill-back programs, replacing gauges, and performing bridge inspections. Maintenance funds will be used for base maintenance activities including project mowing, performing minimum maintenance, and a contract for repair of riprap at Structure A. Utilization of these funds will allow the project availability to remain at 70% level.

REC: N/A

HYD: N/A

ES: N/A

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Waurika Lake, OK

AUTHORIZATION: Public Law 88-253, approved 30 Dec 1963

LOCATION AND DESCRIPTION: Waurika Lake is located at river mile 27.0 on Beaver Creek, a tributary of the Red River, about 6 miles northwest of the town of Waurika in Jefferson County, Oklahoma. This is a multi-purpose project with flood control, irrigation, water supply, water quality, recreation, and fish and wildlife outputs. The project consists of a 16,000 foot long rolled earth-filled embankment with an uncontrolled spillway. At conservation pool the lake covers 10,100 acres.

CONFERENCE FOR FY 2010: T: $1,360,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $856,000
BUDGET FOR FY 2011: M: $1,448,000 **O**: $1,120,000 **T**: $ 2,568,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,016,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $469,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $68,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $15,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Webbers Falls Lock and Dam, OK

AUTHORIZATION: River and Harbor Act of 1946

LOCATION AND DESCRIPTION: Webbers Falls Lock and Dam is located on the Arkansas River at navigation mile 366.6, about 5 miles northwest of the town of Webbers Falls in Muskogee County, Oklahoma. This is a multi-purpose project with navigation and hydroelectric power outputs. The project consists of a 4,370 foot long rolled earth-filled embankment with a concrete, gated ogee weir controlled spillway with twelve 50x41 foot tainter gates. The lock is a single-lift Ohio River type with a 110x600 foot long chamber and a normal lift of 30 feet. The project contains three inclined-axis hydropower generator units with a total capacity of 60MW. At top of power pool the lake covers 11,640 acres.

CONFERENCE FOR FY 2010: T: $5,610,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $7,475,000
BUDGET FOR FY 2011: M: $2,216,000 **O**: $3,401,000 **T**: $5,617,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: $2,195,000 - funding provides for routine operations and maintenance for navigation, including critical fleet maintenance support; channel dredging and upland disposal of dredged material; navigation portion of joint costs for dam safety data; implementation of risk reduction measures; and critical lock and dam inspections.

FDR: N/A

REC: $729,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and limited breakdown maintenance.

HYD: $2,586,000 - funding provides for routine operations and maintenance activities required to keep the powerhouse and associated equipment operating efficiently, including operation of generating units and auxiliary equipment; performing preventative, routine, and limited breakdown maintenance on equipment; and inspecting equipment for suitability of service.

ES: $107,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: N/A

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Whitney Lake, Texas

AUTHORIZATION: Flood Control Acts of 1941 and 1944, PL 77-228 and PL 78-534

LOCATION AND DESCRIPTION: Whitney Lake is located in Hill, Bosque and Johnson Counties at river mile 442 on the Brazos River, 5.5 miles southwest of the city of Whitney and 35 miles upstream from the city of Waco, Texas. 2009 visitation totaled 4,302,605 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $8,891,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $15,190,000
BUDGET FOR FY2011: M: $1,987,000 **O**: $5,234,000 **T**: $7,221,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $2,333,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities.

REC: $1,952,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: $2,546,000 - Funds will be used to operate and maintain hydropower plants as designed.

ES: $372,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $18,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None.

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wister Lake, OK

AUTHORIZATION: Flood Control Act of 1938

LOCATION AND DESCRIPTION: Wister Lake is located on the Poteau River at river mile 60.9, about 2 miles south of the town of Wister in LeFlore County, Oklahoma. This is a multi-purpose project with flood control, water supply, low flow augmentation, water conservation, and sedimentation outputs. The project consists of a 5,700 foot long rolled earth-filled embankment with an uncontrolled, concrete, chute-type spillway with a modified broad-crested weir. At conservation pool the lake covers 7,386 acres.

CONFERENCE FOR FY 2010: **T**: $813,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $1,665,000
BUDGET FOR FY 2011: **M**: $415,000 **O**: $507,000 **T**: $922,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $753,000 - funding provides for routine operations, maintenance, and inspections on structures that reduce flood risk to property and human life, including preventative, routine, and limited breakdown maintenance; operation and inspection of structures to insure projects are performing as designed; and collection of dam safety data.

REC: $50,000 - funding provides for routine operations and maintenance activities related to recreation, including ranger patrols; mowing and other service contracts to maintain park and camping areas; utilities; and breakdown maintenance.

HYD: N/A

ES: $107,000 - funding provides for routine environmental compliance activities, including monitoring of threatened and endangered species; protection of significant cultural resources; water quality monitoring; natural resources management; invasive species control; public education programs; and NEPA compliance activities.

WS: $12,000 - funding provides for monitoring of water usage; management of current water storage agreements; tracking water storage contract billing and payments; renegotiation of expiring water supply agreements; and monitoring of water quality.

OTHER INFORMATION: None

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Wright Patman Dam and Lake, Texas

AUTHORIZATION: Flood Control Act of 1946, PL 79-526

LOCATION AND DESCRIPTION: Wright Patman Dam and Lake is located in Cass and Bowie Counties, on the Sulphur River, and is nine miles southwest of the city of Texarkana, Texas. The project consists of an earthfill dam, uncontrolled spillway, two conduits, and four gates. Flood control storage is 2,329,100 acre-feet and water supply storage is 321,900 acre-feet. Twenty-three recreation areas comprise 3,243 acres. 2009 visitation totaled 11,059,868 visitor hours.

CONFERENCE AMOUNT FOR FY2010: T: $3,342,000
RECOVERY ACT ALLOCATIONS THRU 31 DECEMBER 2009: $3,718,000
BUDGET FOR FY2011: M: $1,316,000 **O**: $2,488,000 **T**: $3,804,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS FOR FY 2011:

N: N/A

FDR: $1,910,000 - Funds will be used to operate and maintain dams, levees, and other flood risk reduction facilities

REC: $1,533,000 - Funds will be used to operate and maintain parks and other public use areas.

HYD: N/A

ES: $335,000 - Funds will be used to identify, maintain, and protect natural and cultural resources.

WS: $26,000 - Funds will be used to monitor water supply and provide customer billings.

OTHER INFORMATION: None

OTHER BUSINESS PROGRAMS

REGULATORY

APPROPRIATION TITLE: Regulatory Program, FY 2011

AUTHORIZATION: Rivers and Harbors Act of 1899, Sections 9, 10 and 13
Clean Water Act, Section 404
Marine Protection, Research and Sanctuaries Act, Section 103

SUMMARIZED FINANCIAL DATA:

Budget for Fiscal Year 2011	$193,000,000
Budget for Fiscal Year 2010	$190,000,000
ARRA Funding Received 2009/10	$ 25,000,000

JUSTIFICATION:

Background. The Corps of Engineers has been regulating specific activities in the Nation's waters since 1890. The Corps' Regulatory program is highly decentralized given the dynamics and needs of different areas with most of the authority for administering the program delegated to District and Division Commanders. The Corps' regulatory program has become the focus of more intense interest as public awareness of the aquatic environment and the involvement of state and Federal resource agencies continues to grow and there is greater direct input in the permit application process from the public and interest groups. While this heightened scrutiny tends to add time to the decision making process, it provides balance in the overall review. Interagency cooperation in the management and protection of the nation's aquatic resources has greatly improved over the last ten years, resulting in improved efficiency and effectiveness of the Corps' Regulatory program. The Corps has worked to implement program changes to enhance efficiency, enabling more timely response to permit applicants while also improving its ability to protect the aquatic environment. The Corps works with state, tribal, and local governments to develop mechanisms that eliminate duplication for regulating aquatic resources; this is achieved primarily through programmatic and regional general permits for activities with only minimal adverse impacts on the aquatic environment. Strategies to eliminate duplication of effort also include joint federal-state permit applications and processing procedures as well as work-sharing agreements with state and local governments. State Programmatic General Permits are an effective mechanism for giving states a greater role in administering minor permit actions, while focusing Corps resources on more complex permit actions. States may assume Section 404 authority (in non-navigable waters) where the state or local regulatory program is able to implement appropriate regulatory controls. Since 1984, only Michigan and New Jersey have assumed the 404 program. The Corps continues to collaborate with Federal agencies to share information and data. The joint Federal mitigation rule published in 2008 has strengthened the Corps compensatory mitigation requirements and ensures that review and approval requirements are the same for all mitigation options. Interagency reviews of mitigation banks and in-lieu fee programs are an important component of compensatory mitigation decisions.

Types of Activities Regulated by the Corps:

a. Construction and other work in waters of the United States including wetlands;
b. Construction of fixed structures and artificial islands on the outer continental shelf;
c. Discharges of dredged or fill material, including those associated with construction and land-clearing activities, into the waters of the United States, including wetlands;
d. The transportation of dredged material for the purpose of disposal in ocean waters.

APPROPRIATION TITLE: Regulatory Program, FY 2011

Evaluation Criteria. The decision whether to issue a permit is based on an evaluation of the probable impacts of proposed activities on the aquatic environment, including wetlands, and other aspects of the public interest. In order to issue a permit, District Commanders must determine that activities are not contrary to the public interest. In addition, for Section 404 permits, the Corps must determine compliance with the Clean Water Act, Section 404 (b)(1) guidelines. Corps permits must also be in compliance with other Federal laws, including the Endangered Species Act and National Historic Preservation Act.

ACCOMPLISHMENTS: In FY 2009, the Corps authorized approximately 49,000 activities and completed more than 80,000 jurisdiction determinations. Of the 49,000 authorizations, more than 80 percent were authorized by Regional and Nationwide general permits with the remainder authorized by the more complex individual permits. The Corps continues to depend on its nationwide permit program to help manage its regulatory workload. Without regional and nationwide general permits, all activities would have to be evaluated by a more time consuming individual permit process. Although the evaluation time for an individual permit is typically greater than that for a general permit, most general permit authorizations also involve substantive evaluation and determination of necessary mitigation. The Corps reissued the Nationwide permits in FY 2007 and continues to re-evaluate data for their renewal in 2012. In addition, the Corps is evaluating over 21,000 comments regarding the suspension and modification of Nationwide Permit (NWP) 21 for surface coal mining in Appalachia in accordance with the interagency MOU signed in June 2009.

The Corps continues to be a driving force in the arena of technology to support decision making and track regulatory actions. In 2009, additional modifications were implemented to the ORM2 data base to further standardize the data entry of 38 districts, and Regulators were provided with additional training and standard operating procedures and guidance on data management. This database is essential for collecting and reporting data for all actions, and their impacts, mitigation, and location, in a consistent manner. The use of geospatial data from internal and external sources is also a component of the ORM2 system, allowing district Regulators to use this information in the decision making process. As a result, the Corps is making better decisions using available data in a timely manner. To improve service to the regulated public and stakeholders, the Corps' Jacksonville District launched an interactive web based system (AVATAR) which assists the public in completing their permit applications. The goal of the AVATAR is to assist the applicant and ensure that the Corps receives all of the necessary information to process the permit application. The anticipated result is that more applications will be submitted with complete and accurate information, thereby reducing the need to request additional information from Corps staff.

The Corps continues to protect the nation's aquatic environment, while working to provide fair and equitable decisions in a reasonable period of time. Standard permits represent approximately 5% of all permits in numbers but utilize almost a third of all Corps man-days expended on permit actions. The environmental review for these permits is extensive and time consuming as many involve endangered species, historic resources, and compensatory mitigation. Each year as development pressure persists or increases, more applicants seek approval to build in or near higher value aquatic areas, including wetlands. Given the complexity of the review and a changing development landscape, more permit decisions, whether issued or denied, are resulting in litigation. The potential for litigation increases the need for more-in-depth review and documentation on complex permits. The complexity of the Supreme Court Decisions related to CWA jurisdiction also continue to increase the time it takes to provide landowners with decisions.

On June 11, 2009, the Corps, OSM, U.S. FWS and U.S. EPA signed an MOU to implement an Interagency Action Plan (IAP) for Appalachian surface coal mining given increased litigation and concerns about cumulative impacts as a result of Surface Coal Mining (Mountain Top Mining). The IAP was developed to reduce the adverse environmental impacts of surface coal mining activities in the Appalachian region of KY, OH, PA, TN, VA, and WV (within the boundaries of the LRL, LRH, LRP, LRN and NAO), while assuring that future mining remains consistent with the CWA and the Surface Mining Control and Reclamation Act. The IAP lists several short-term actions to be taken by the agencies, one of which commits the Corps to issue a Federal Register notice proposing to modify NWP 21 to prohibit its use in conjunction with surface coal mining activities in the Appalachian region of the states identified above. We issued the FR notice on 15 July. On 13 and 15

October, the Corps held public hearings in each of the six states that would be affected. At the close of the comment period on 26 October, we had received approximately 21,000 comments, including approximately 20 comments from members of Congress, state representatives, and elected county officials. We will make a decision on suspension and/or modification of NWP 21 after we complete a thorough review of all comments. Other short-term actions we are working as a result of the IAP include jointly developing guidance with EPA and U.S. FWS to improve the ecological success of stream mitigation and to strengthen the environmental review of coal projects pursuant to the Section 404 (b)(1) Guidelines.

FISCAL YEAR 2011: The FY 2011 request will allow the Corps to continue to provide the level of documentation necessary for jurisdictional determinations and permit decisions and should enable the Corps to maintain processing times at or near the current levels for standard permits and General Permits. Funds will be allocated for compliance inspections of permitted activities, including monitoring of compensatory mitigation. Enforcement funding has been separated from compliance funding and will remain at current levels.

Other program management efforts will continue, including specialized training of Corps personnel and technical assistance to Corps districts by the Engineer Research and Development Center (ERDC). For FY 2011, approximately $500,000 will be allocated to ERDC for its direct technical assistance with complex and sensitive permit cases. This funding will also allow ERDC to continue to provide scientific and technical support for programmatic initiatives including revisions to the Federal regional wetland delineation supplements and the national plant list. These initiatives will strengthen our decision-making and ensure consistency in aquatic resource delineations by taking into account regional variations. Funds will be provided to the Institute for Water Resources to address special program management issues such as studies of mitigation banking, improvement of the ORM2 database, and programmatic assessments. The new spatial database, ORM2, will collect workload statistics and program performance as well as information on mitigation including habitat type which is critical for ensuring the Corps achieves its "no net loss" of wetlands goal. Regulatory supports the No Net Loss policy programmatically. The database will also have spatial data on permits, which can be made available to the public and our Federal, state and local partners.

The $193 million will be applied as follows:

Permit Evaluation and Jurisdictional determinations	$159,000,000
Enforcement & Resolution	$ 14,400,000
Administrative Appeals	$ 1,000,000
Studies (SPGP's) and Wetlands Technical Support	$ 4,600,000
Compliance for Authorized Activities & Mitigation	$ 14,000,000
TOTAL	$193,000,000

ENVIRONMENT

FORMERLY USED SITES REMEDIAL ACTION PROGRAM

(FUSRAP)

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2011

State Project Name	Allocated through FY 2010	FY 2011 Request	Remaining Requirement Low Estimate	High Estimate
Connecticut				
CE, Windsor, CT	9,852,000	25,000	25,000	TBD
Indiana				
Joslyn Manufacturing & Supply Company, Ft. Wayne, IN	645,727	350,000	13,345,000	TBD
Iowa				
Iowa Army Ammunition Plant, Middletown, IA	14,510,000	5,000,000	29,310,000	TBD
Maryland				
W. R. Grace, Baltimore, MD	14,343,000	750,000	2,200,000	3,200,000
Massachusetts				
Shpack Landfill, Norton, MA	49,519,000	6,700,000	3,492,000	3,492,000
Missouri				
Downtown, St. Louis, MO	211,277,000	13,800,000	40,000	TBD
Latty Avenue, St. Louis, MO	144,829,000	12,000,000	30,007,323	30,007,323
St. Louis Airport Vicinity Properties, St. Louis, MO	67,905,000	9,700,000	27,352,504	27,352,504
St. Louis Airport, St. Louis, MO	305,718,000	200,000	3,406,000	3,406,000
New Jersey				
Dupont Chambers Works, Deepwater, NJ	20,940,000	1,300,000	7,390,000	TBD
Maywood, NJ	437,863,000	35,000,000	365,851,000	375,851,000
Middlesex, NJ	110,994,000	200,000	865,000	3,865,000
New York				
Colonie, NY	190,814,000	200,000	2,420,000	11,316,000
Guterl, Lockport, NY	7,550,000	975,000	1,539,242	TBD
Linde Air Products, Tonawanda, NY	268,358,896	10,000,000	81,500,000	81,500,000
Niagara Falls Storage Site, NY	60,818,814	3,500,000	13,249,677	TBD
Seaway Industrial Park, Tonawanda, NY	9,915,000	250,000	34,367,722	34,367,722
Sylvania Corning, Hicksville, NY	12,570,000	1,243,000	TBD	TBD
Tonawanda Landfill Vicinity Property	1,651,733	1,325,000	808,642	TBD
Ohio				
Former Harshaw Chemical Company, Cleveland, OH	15,890,000	800,000	1,565,551	TBD
Luckey, OH	18,923,705	500,000	305,503,798	305,503,798
Painesville, OH	32,782,353	7,500,000	5,316,898	5,316,898
Pennsylvania				
Shallow Land Disposal Area, Parks Township, PA	14,590,000	17,000,000	144,746,810	144,746,810
Superior Steel, Scott Township, PA	215,000	350,000	13,295,000	TBD
Potential Sites	6,900,000	882,000	TBD	TBD
Totals	2,029,375,228	130,000,000		

1 February 2010

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2011 North Atlantic Division

CONNECTICUT

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
Combustion Engineering Windsor, CT New England District	9,902,000	9,827,000	0	N/A	25,000	25,000	25,000

The Combustion Engineering (CE) site is a 600-acre area in Windsor, Connecticut. CE, under contract to the Atomic Energy Commission (AEC), fabricated nuclear fuel assemblies using highly enriched uranium (HEU) from 1958 to 1961. CE also conducted licensed commercial nuclear activity on the site from the early 1960's to 1993. Although the commercial nuclear fuel fabrication ceased in 1993, CE is still licensed by the Nuclear Regulatory Commission (NRC) for other commercial nuclear activities and the facility is still operating today. HEU is the primary radiological contaminant of concern at the site which may be addressed by Formerly Utilized Sites Remedial Action Program (FUSRAP). Only limited site characterization work had been performed when FUSRAP was transferred from the Department of Energy (DOE) to the Corps for execution. Since then, the Corps has performed a gamma survey of the site, completed site characterization (SI), completed an investigation action at the "Rapaport Building", completed a Remedial Investigation Report and completed a draft Feasibility Study.

CE's NRC license was expanded to cover the FUSRAP waste in FY07. CE will now be responsible for addressing any FUSRAP waste as part of their site decommissioning efforts.

In FY 2008 and FY2009 funds were used to monitor NRC and CE actions associated with the site.

In FY2010 funds are being used to continue Corps' monitoring of site activity.

In FY2011 funds will be used to continue Corps' monitoring of site activity.

**The schedule for completion of site remediation is unknown at this time. We expect to prepare a no further action decision

INDIANA

Site	Total Estimated Federal Cost* $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
Joslyn Manufacturing & Supply Company Fort Wayne, IN Buffalo District	14,340,728 - TBD	671,471	-25,744	N/A	0	350,000	TBD

The Joslyn Manufacturing and Supply Co. (Joslyn Manufacturing Site), officially known as the Fort Wayne Steel Corporation, is owned by Valbruna Slater Stainless Inc. (VSSI). It is located at 2302 Taylor Street, Fort Wayne, IN. During the nation's early atomic energy program, the USACE Manhattan Engineer District (MED), the Atomic Energy Commission (AEC), and the University of Chicago contracted with the Joslyn Manufacturing and Supply Company to assist in developing America's first nuclear weapons. Operations performed at the Joslyn Manufacturing Site included heating and machining natural uranium billets converting them into metal rods for shipment to Hanford, Washington. The areas utilized for supporting the MED/AEC program from 1943 to 1952 are currently isolated and inactive. During a property transaction, the presence of radioactive contamination was reassessed and the site was referred to the US Department of Energy (USDOE) for further evaluation. On August 26, 2004 the USDOE determined that this site should be reviewed for possible inclusion in the FUSRAP and on November 19, 2004 referred this site to the USACE for investigation in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process. During 2006 - 2008 the USACE completed the Preliminary Assessment (PA), Site Investigation (SI), and Preliminary Legal Liability Analysis (PLLA). In July 2009, the USACE officially included this site into the FUSRAP program based upon the facts established in the PA, SI, and PLLA.

In FY2009, funds were used to complete the evaluation of data and eligibility criteria and complete the Corps decision process to include this project into the FUSRAP.

In FY2010, the Corps budget does not include funding for this project.

In FY2011, funds will be used to initiate the Remedial Investigation by funding the completion of a Historic Aerial Photography Analysis and awarding a contract to complete a Site Ownership and Operational History (SOOH) Report.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

IOWA

Site	Total Estimated Federal Cost* $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
Iowa Army Ammunition Plant Middletown, IA, St. Louis District	49,720,000 - TBD	4,210,000	6,200,000	N/A	5,000,000	5,000,000	29,310,000 - TBD

The Iowa Army Ammunition Plant (IAAAP) is a secured, operational, Army-owned facility located on approximately 19,100 acres near Burlington in Des Moines County, in southeastern Iowa. During its use as an Army facility, portions of the IAAAP were occupied by tenant organizations including the Atomic Energy Commission (AEC). From 1947 to 1975, the AEC operated areas of the plant as the Burlington Atomic Energy Commission Plant (BAECP). In 2002 a Preliminary Assessment was completed for the BAECP and the IAAAP was included in FUSRAP. Evidence of a release was found and a Remedial Investigation was begun. The FUSRAP Remedial Investigation, which was completed in August 2008, identified three areas (the Firing Site area and Yards C and G) for further evaluation in the Feasibility Study. Contamination consisted of radiological (depleted uranium), chemical, and explosives. Alternatives to address the contamination will be presented in the Feasibility Report (the next step in the planning process). The primary regulators/stakeholders include the Environmental Protection Agency Region VII, Iowa Department s of Public Health and Natural Resources, Iowa Army Ammunition Plant (Army) and the IAAAP Restoration Advisory Board. The site was placed on the National Priority List in 1990.

FY 2009 funds were used to address the Line 1 and West Burn Pads South areas. Activities consisted of excavation and disposal of approximately 5400 cubic yards of contaminated material. Remediation of these two areas is being conducted under a prior Army Record of Decision. FY 2009 funds were also used to develop and issue the draft Feasibility Report for the Firing Site, Yard C and Yard G areas.

FY 2010 funds are being used to continue remediation of the West Burn Pads South areas and Line 1 under the existing non-radiological Record of Decision and to finalize the Feasibility Report and Proposed Plan. Approximately 8000 cubic yards of contaminated material are being removed.

FY 2011 funds will be used to remediate the Line 1 area and to complete the Record of Decision.

*A preliminary cost estimate for site remediation will be determined during the Feasibility Study phase.

**The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints.

MARYLAND

Site	Total Estimated Federal Cost* $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
W.R. Grace Site Baltimore, MD Baltimore District	17,293,000 - 18,293,000	12,893,000	750,000	N/A	700,000	750,000	2,200,000 - 3,200,000

The W.R. GRACE site is situated within a 260-acre property owned by W.R. Grace-Davidson Chemical Manufacturing Company (GRACE) and located in southwestern Baltimore City on an industrialized peninsula. Currently, GRACE manufactures and produces specialty chemicals at this facility. Contamination at the site is located in two separate and distinct areas of concern. The first is located in the southwestern corner of Building 23 which housed the thorium extraction process and has contaminated surfaces which were impacted by this process. The second area is the approximately 7-acre Radioactive Waste Disposal Area (RWDA) located east of the plant proper. This area received the process byproducts and spent monazite sand and gangue from the thorium extraction process. The Department of Energy (DOE) conducted radiological surveys at the site; however, no characterization or remediation had been performed. The Corps has finalized the remedial investigation/feasibility study (RI/FS) and Record of Decision (ROD) for Building 23. The RWDA RI/FS is complete.

A Site-Wide Settlement Agreement was signed in 21 April 2008 by the District of Delaware, Bankruptcy Court. The agreement states that financial liability shall be shared between GRACE and the Government in a 40/60 split and giving GRACE the site lead to obtain, manage and direct the site cleanup according to the Records of Decision for each respective area of concern. GRACE is given the right to seek cost reimbursement from the Government, through the Department of Justice Settlement Fund, for those funds spent on the Government's behalf (60%) in conducting the cleanup work.

In FY 2009, the funds were used to complete the RWDA Proposed Plan and technical oversight of GRACE's remedial activities in Building 23 conducted according to the Settlement Agreement.

In FY 2010, funds are being used to prepare the RWDA Record of Decision and will continue to provide technical oversight of Building 23 Remedial Action work conducted according to the Settlement Agreement.

FY 2011, funds will be used to complete the Record of Decision for RWDA and will continue technical oversight of Building 23 and RWDA Remedial Action work according to the Settlement Agreement.

* The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site is approved in a Record of Decision, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and on overall funding constraints.

MASSACHUSETTS

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Shpack Landfill Norton/Attleboro, MA New England District	65,709,000	32,019,000	10,000,000	5,998,000	7,500,000	6,700,000	3,492,000

The Shpack site is an 8-acre abandoned domestic and industrial landfill which operated from 1946 to 1965. It is located along the Norton/Attleboro town boundary line with approximately 5.5 acres in Norton and 2.5 acres in Attleboro. The Town of Norton and Attleboro Landfill, Inc. owns the property. FUSRAP-related radioactive contamination is believed to have come from Metals and Controls, Inc. (now Texas Instruments), which had used the landfill to dispose of trash and other materials from 1957-1965. The General Plate Division of Metals and Controls began to fabricate enriched uranium foils at their Attleboro plant in 1952. In 1959 it merged with Texas Instruments, which continued the operations until 1981, using enriched and natural uranium for the fabrication of nuclear fuel for the U.S. Navy and commercial customers. The site was also listed on the National Priority List (NPL) in 1986, primarily to address other contaminants on site. The Environmental Protection Agency (EPA) has signed an Administrative Order by Consent with a group of Settling Parties (which includes Texas Instruments) for the performance of a remedial investigation/feasibility study (RI/FS). This study was completed in FY04 and a Record of Decision (which addressed the radiological contamination) was signed on 30 September 2004. The Corps has completed a gamma walk-over survey, site characterization, and potentially responsible party (PRP) investigations and completed a draft Engineering Evaluation/Cost Analysis (EE/CA). In FY 2005, the Corps initiated the remedial action in accordance with EPA's Record of Decision. Quantities of contaminated soil have increased significantly over those in the Record of Decision requiring a significant increase in funding to complete the project

In FY2009 funds were used to continue the remedial action.

American Recovery and Reinvestment Act (ARRA) funding is being used to continue and expedite the remedial action.

In FY2010 funds are being used to continue the remedial action.

In FY2011 funds will be used to continue the remedial action with completion now scheduled for 2012.

MISSOURI

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
St. Louis Downtown Site St. Louis, MO St. Louis District	225,117,000 -TBD	182,677,000	15,600,000	N/A	13,000,000	13,800,000	40,000 - TBD

The St. Louis Downtown Site and vicinity properties are located in St. Louis, Missouri. The site is comprised of an operational chemical manufacturing facility (Mallinckrodt Inc.) and 36 surrounding properties used by a variety of interests for industrial and commercial purposes. The primary contaminants of concern are radium-226, thorium-230, uranium-238, metals, and organic compounds. The extent of contamination includes 17 acres where contaminated soils are accessible for remediation (17 buildings, subsurface soil, and vicinity properties). The primary regulators/stakeholders include the U.S. Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. In 1998, a Record of Decision (ROD) for the accessible areas was signed to allow the removal of approximately 87,000 cubic yards of contaminated soils. The total estimated Federal cost shown above does not reflect possible costs of addressing contamination in inaccessible soils. The inaccessible soils remain to be addressed by CERCLA documentation including a Record of Decision.

FY 2009 funds were used to excavate and ship 14,509 cubic yards from the Plant 6 West area and vicinity properties, to complete additional pre-design sampling of the BNSF railroad property, and to release two vicinity properties. In addition, FY 2009 funds were used to finalize the sampling work plan for the inaccessible areas and to begin collecting samples.

FY 2010 funds are being used to remediate approximately 10,000 cubic yards, to complete the design on the BNSF railroad property, and to release five properties in accordance with the Record of Decision for accessible areas. In addition, FY 2010 funds are being used to complete sampling of the inaccessible areas and begin preparation of the Remedial Investigation document.

FY 2011 funds will be used to remediate approximately 9,000 cubic yards and to issue the Remedial Investigation and Feasibility Reports for the inaccessible areas.

The completion schedule will depend on the overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Latty Avenue Properties / Hazelwood Interim Storage Site Berkeley, MO St. Louis District	186,836,323	102,367,000	22,462,000	N/A	20,000,000	12,000,000	30,007,323

The Latty Avenue Properties site is comprised of several different tracts of land in North St. Louis County, Missouri. The project includes an 11-acre site, encompassing the Hazelwood Interim Storage Site (HISS) and Futura Coatings on Latty Avenue, and the Latty Avenue Vicinity Properties, which are at various nearby locations. The Hazelwood Interim Storage Site and Futura Coatings were placed on the National Priority List in 1989. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. Surface and subsurface soils are known to be contaminated at levels which pose an unacceptable human health risk based on projected future land use scenarios. The primary regulators/stakeholders include the Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee.

FY 2009 funds were used to excavate and ship 39,422 cubic yards of contaminated soil from the HISS/FUTURA property, to negotiate the Right-of-Entry for VP-02L and to complete a draft design for VP-02L.

FY 2010 funds are being used to excavate and ship approximately 17,000 cubic yards of contaminated soil from the HISS/FUTURA and VP-02L properties. In addition, a final Post Remedial Action Report, which will release two properties for beneficial use, will be issued.

FY 2011 funds will be used to excavate and ship approximately 12,000 cubic yards of contaminated soil and to prepare release documents for two additional vicinity properties.

The completion schedule will depend on overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
St. Louis Airport Site, Vicinity Properties St. Louis, MO St. Louis District	106,957,504	53,905,000	4,000,000	2,000,000	10,000,000	9,700,000	27,352,504

The St. Louis Airport Site (SLAPS) Vicinity Properties consists of 78 properties in North St. Louis County, Missouri. The contaminated sites include former ball fields (located directly north of SLAPS), areas along haul roads, and Coldwater Creek. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. Dispersion of radioactive material occurred by direct migration from SLAPS via air or water, or as a result of transport along the roadways between the St. Louis Airport Site and the HISS/Latty Avenue Site. This is the case for most of the roadway, shoulder, and ditch contamination. The properties are used for residential, commercial, industrial, recreational and transportation (road easement) purposes. The primary regulators/stakeholders include the Environmental Protection Agency, Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. The Record of Decision for this site was finalized in FY 2005. A Potentially Responsible Party investigation is underway.

FY 2009 funds were used to excavate and ship 4,915 cubic yards of contaminated material, to complete designs for several properties, and to complete final status survey documents for seventeen properties (thereby releasing them for beneficial use.)

American Recovery and Reinvestment Act (ARRA) funds are being used in FY 2010 to remediate 5 vicinity properties. The funds were awarded to a small business contractor which will remove and ship approximately 2,000 cubic yards of material and restore the properties to their pre-excavation state. The ARRA funded remediation is scheduled for completion in FY 2010.

FY 2010 funds are being used to remove and ship approximately 8,000 cubic yards and to prepare documentation to return six vicinity properties to beneficial use.

FY 2011 funds will be used to excavate and ship approximately 7,000 cubic yards and to prepare documentation to return eight vicinity properties to beneficial use.

The completion schedule will depend on overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
St. Louis Airport Site St. Louis, MO St. Louis District	308,964,000	305,380,000	138,000	N/A	200,000	200,000	3,046,000

The St. Louis Airport Site (SLAPS) consists of 21.7 acres north of Lambert International Airport in North St. Louis County, Missouri. The site is bordered by McDonnell Boulevard on the north and east, Coldwater Creek on the west, Banshee Road and Norfolk and Western Railway on the south. The ditches immediately adjacent to the north and south of SLAPS are considered part of this location. The primary contaminants of concern are radium-226, thorium-230, and uranium-238. The St. Louis Airport Authority owns the property. The primary regulators/stakeholders include the U.S. Environmental Protection Agency Region VII, Missouri Department of Natural Resources, and the St. Louis Oversight Committee. A Potentially Responsible Party Investigation is underway. The site was placed on the National Priority List in 1989. In 2008, the Corps completed remediation of this site in accordance with the 2005 Record of Decision.

FY 2009 funds were used to coordinate review of the post remedial action document with regulators (State of Missouri and U.S. Environmental Protection Agency) and to issue a final version of this document. In addition, groundwater monitoring and long term management activities occurred in accordance with the Record of Decision.

FY 2010 funds are being used to perform groundwater monitoring and long term management activities in accordance with the Record of Decision.

FY 2011 funds will be used to perform groundwater monitoring and long term management activities in accordance with the Record of Decision.

NEW JERSEY

Site	Total Estimated Federal Cost* $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
DuPont Chambers Works Deepwater, NJ Philadelphia District	22,210,000 - TBD	18,790,000	1,150,000	N/A	1,000,000	1,300,000	7,390,000 - TBD

The DuPont Chambers Works site is a 700-acre active chemical plant located in Pennsville and Carneys Point Townships on the southeastern shore of the Delaware River, north of the I-295 Delaware Memorial Bridge, and adjacent to the residential community of Deepwater, N.J. The plant is owned and operated by E.I. Dupont de Nemours & Company. Operations involving uranium at the Chambers Works site began in 1942. As part of its work on the Manhattan Engineer District (MED) Program, DuPont worked on developing a process for converting uranium oxide to produce uranium tetraflouride and small quantities of uranium metal. The major contaminant is U-238 found in both soil and water samples. Through FY2004, the Corps continued site characterization and Remedial Investigation / Feasibility Study (RI/FS) activities for soil contamination and investigation of possible groundwater contamination, conducted Technical Project Planning sessions with the stakeholders including the New Jersey Department of Environmental Protection, held Restoration Advisory Board Meetings, conducted extensive coordination with the landowner, and completed work-plans for on-site investigations and completed soil sampling and well installation.

In FY 2009, the Corps completed the Draft RI and Risk Assessment (RA) reports for Regulator review and comment. The Regulators have completed their comments and Corps has prepared responses.

In 2010 funds are being used to initiate the site-wide Feasibility Study and Proposed Plan reports.

Requested funds for 2011 will be used to complete site-wide Feasibility Study and Proposed Plan tasks. The reports will go through a Regulator and Public review / response period.

The schedule for completion of site remediation is to be determined.**

*The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a Record of Decision, it will be possible to provide a more definitive estimate. Current project completion schedules and cost estimates do not include any remedial design or remediation action for potential ground-water contamination.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost* $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011** $
Maywood Site Maywood, N.J. New York District	893,000,000 - 903,000,000	367,163,000	35,200,000	54,286,000	35,500,000	35,000,000	365,851,000 - 375,851,000

The Maywood site is included on the Environmental Protection Agency Superfund National Priorities List. The Corps is currently working under the Federal Facilities Agreement (FFA) signed by DOE and EPA. The site consists of 140 acres of residential, commercial and industrial property totaling 88 commercial and residential properties, located 20 miles north of Newark adjacent to Interstate 80 and State Route 17. There are approximately 281,000 cubic yards of subsurface contaminated material containing thorium-232, radium-226, and uranium-238. The United States owns 11.7 acres of the site, which is being used as a staging area during cleanup operations. The Stepan Company occupies part of the site and operates a chemical factory processing a patented product. Sears operates a large central distribution warehouse (leased) on the site. In the mid-1980's, 25 residential vicinity properties were remediated. In 1994 an Engineering Evaluation/Cost Analysis (EE/CA) by the Department of Energy approved a further interim removal action to remediate an additional 39 vicinity properties. As of the end of FY 00, all of the 39 vicinity properties included in the 1994 EE/CA have been remediated, including 23 completed by the Corps (15 in FY 98, 7 in FY99, and 1 in FY00). Additionally, the Corps has completed a Remedial Investigation/Feasibility Study/Proposed Plan, Record of Decision, Remedial Design (RI/FS/PP/ROD/RD) for soils and buildings on the remainder of the site, prepared an EE/CA for an interim removal action involving 10 commercial properties impacted by New Jersey Department of Transportation projects, initiated remedial action for the remainder of soils and completed potentially responsible party (PRP) negotiations through the Department of Justice with the Stepan Company. A complete review of the cost estimate prepared in 2003 has identified inconsistencies with what we presently know. A new cost estimate has been prepared and the funding information above has been revised accordingly.

In FY 2009, the Corps continued the remedial action under the soils ROD, completed the feasibility study and proposed plan and initiated the groundwater ROD.

American Recovery and Reinvestment Act (ARRA) funds are being used to excavate the burial pits 1, 2 and other contaminated portions of the Maywood site on the Stepan property.

In FY 2010, funds are being used to continue work the soils remedial action and continue preparation of a groundwater ROD document.

In FY 2011, funds will be used to continue the remedial action under the soils ROD and to complete the documentation of the groundwater ROD.

*The total cost will depend upon the specific groundwater cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a groundwater Record of Decision, it will be possible to provide a more definitive estimate.

**The completion schedule will depend on the groundwater cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Middlesex Sampling Plant Middlesex, NJ New York District	112,059,000 - 115,059,000	109,244,000	1,050,000	N/A	700,000	200,000	865,000 - 3,865,000

The Middlesex site is a Federal government-owned site located in Middlesex, NJ. There are also 36 Vicinity Properties (VPs). Primary contaminants are Uranium-232, Radium-226, and Thorium-232. The Manhattan Engineer District (MED) established the Middlesex Sampling Plant (MSP) in 1943 for use in sampling, storage, and shipment of uranium, thorium, and beryllium ores. MED operations ended in 1955, and the Atomic Energy Commission (AEC) later used the site for storage and performed limited sampling of thorium residues. In 1967, the AEC terminated activities at the MSP and decontaminated onsite structures to meet criteria then in effect. From 1969 to 1979, the site served as a US Marine Corps training center. In 1980, the MSP was returned to the Department of Energy (as AEC's successor), which designated it for clean up under FUSRAP. MSP was used for interim storage of two piles of radioactively contaminated soils removed from the vicinity properties (VPs) and from the Middlesex Municipal Landfill (MML). The Middlesex site was added to the Environmental Protection Agency Superfund National Priorities List (NPL) in FY 1999. Through the end of FY 2001, the Corps has removed and disposed of the MML pile and the VP pile. Additionally, the Corps has completed a Remedial Investigation/Feasibility Study/Proposed Plan, Record of Decision, Remedial Design (RI/FS/PP, ROD/RD) for soils on the remainder of the site. Coordination with Federal and state agencies, and local communities is continuing.

In FY 2009, the Corps continued the Groundwater Feasibility Study and Proposed Plan.

In FY 2010, the Corps continues the groundwater investigation needed for the Feasibility Study and Proposed Remedial Action Plan.

FY 2011funds will be used to continue the Groundwater Feasibility Study and Proposed Remedial Action Plan.

The schedule for completion of site remediation is to be determined.**

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* The total cost will depend upon the specific cleanup standards established for this site, taking into account input from federal, state, and local regulators, the general public, and other stakeholders. Once a final cleanup plan for the site has been approved in a Record of Decision, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

NEW YORK

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Colonie Site Colonie, NY New York District	193,434,000 - 202,330,000	189,614,000	1,000,000	N/A	200,000	200,000	2,420,000 - 11,316,000

The Colonie site consists of a total area of 11.2 acres plus 56 vicinity properties (VPs). The primary site was owned and operated by National Lead Industries (NL) from 1937-1984. The facility was used for electroplating and manufacturing various components from uranium and thorium. Radioactive materials released from the plant exhaust stacks spread to site buildings, portions of the grounds, and the 56 commercial and residential VPs. NL also dumped contaminated casting sand into the former Patroon Lake. By order of a New York State Court the NL plant shut down in 1984. Coordination is ongoing with the New York State Department of Environmental Conservation, and local leaders. The transfer of the property from NL to the Federal government in 1984 contained "hold harmless" language, which precludes holding NL as a PRP. At the time of transfer of FUSRAP execution to the Corps, the Department of Energy (DOE) had completed remediation of the vicinity properties; and in 1995 finalized an Engineering Evaluation/ Cost Analysis (EE/CA), authorizing a removal action to address soils contamination at the former NL property itself. Through FY 2002, the Corps disposed, off-site, stockpiled materials and excavated contaminated soils, in accordance with the DOE EE/CA; completed a reevaluation of the DOE EE/CA and issued an amended EE/CA and revised action memorandum; and continued the groundwater investigations. Additionally, the Corps has completed the removal action under the revised Action Memorandum.

FY 2009 funds were used to complete the Groundwater Feasibility Study/Proposed Remedial Action Plan and prepare a combined draft Groundwater Record of Decision (ROD).

In FY 2010, the Corps is completing the Groundwater ROD and continues the preparation of a Soils Record of Decision.

FY 2011 funds will be used to prepare a Soils Record of Decision which is planned to be completed in 2012.

The schedule for completion of site remediation is to be determined.**

* Once a final groundwater proposed plan for the site has been approved, it will be possible to provide a more definitive estimate.

** The completion schedule will depend on the cleanup standards established for this site and overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Guterl Specialty Steel Lockport, NY Buffalo District	10,064,242 -TBD	5,335,000	215,000	N/A	2,000,000	975,000	1,539,242 -TBD

The former Guterl Specialty Steel site, (a.k.a. Simmonds Saw and Steel Corporation), comprises about 70 acres in the City of Lockport, New York, approximately 20 miles north of Buffalo, New York. The site is bordered by residential and commercial properties to the north, State Route 93 to the west, and the New York State Barge Canal to the south. An active steel plant adjacent to the site is currently being operated by ALLVAC, a business unit of the Allegany Technologies, Inc. Currently, employment is approximately 60 people. The site was used to perform rolling mill operations on about 35-million pounds of uranium metals and 40-thousand pounds of thorium metals between 1948 and 1955 under contracts issued by the Atomic Energy Commission (AEC). The buildings used to support the AEC process encompass about 9 acres, and are abandoned. The site also includes a 9-acre landfill. The USACE is investigating the nature and extent of radiological contamination, and associated human health and ecological risks, resulting from the past AEC operations. The USACE coordinates proposed investigative and remedial activities with the New York State Department of Environmental Conservation, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2009 funds were used to complete the draft Remedial Investigation Report and complete the Historic Aerial Photography Analysis.

In FY 2010 the Corps publicly releases the Remedial Investigation Report (RIR), awards the contract to complete the Feasibility Study (FS), continues groundwater sampling and analysis to detect potential contaminant migration, and provides environmental outreach products and services to the affected community.

In FY 2011, funds will be used to continue work on the Feasibility Study and initiate the Proposed Plan, in addition to performing annual groundwater sampling and analysis to detect potential contaminant migration.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Linde Air Products Tonawanda, NY Buffalo District	359,858,896	236,858,896	25,000,000	N/A	6,500,000	10,000,000	81,500,000

The Linde site is located at 135 East Park Drive in the Town of Tonawanda, a suburb north of Buffalo, NY. The site is owned by Praxair Technology Incorporated. The Linde site is a former industrial complex in an urban area that now serves as the worldwide research and development facility for Praxair with approximately 1,400 workers on site. A public elementary school and numerous residential properties adjoin the property. During the 1940s the Linde Division of the Union Carbide Corporation used portions of the properties for processing of uranium ores in support of the Manhattan Engineering District (MED) activities to develop the nation's first atomic weapons. The USACE is remediating radiological contamination in the soils, buildings, and groundwater under the authority of the FUSRAP and in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The USACE coordinates project activities with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY2009, the Corps continued the excavation and off-site disposal of contaminated soils at the Linde site. The USACE also completed a statistical analysis of potential cost and schedule risks and impacts to accomplish cleanup at the site and advanced additional real estate acquisitions required to complete the project.

In FY2010 the Corps continues remediation of contaminated soils at the Linde site.

In FY2011 funds will be used to continue the remediation of contaminated soils at the Linde site.

* The total estimated Federal cost is increased to include $25,051,000 of USDOE costs not previously included and $106,000,000, estimated by the Corps in its Cost-Schedule Risk Analysis, as the 80% confidence cost to complete remedial action at the site.

**The completion schedule will depend on actual volumes of contaminated soils encountered at the site and national program funding priorities and constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Niagara Falls Storage Site Lewiston, NY Buffalo District	83,961,384 -TBD	52,392,814	3,318,893	8,000,000	3,500,000	3,500,000	13,249,677 -TBD

The Niagara Falls Storage Site (NFSS) is located at 1397 Pletcher Road in the Town of Lewiston, NY approximately 19 miles north of Buffalo, NY. The NFSS is a 191-acre Federally-owned site with significant environmental impacts from past activities supporting the nation's early atomic weapons programs under the Manhattan Engineer District (MED) and Atomic Energy Commission (AEC). The site contains a 10-acre Interim Waste Containment Structure (IWCS) built by the US Department of Energy (USDOE) in the 1980s to store high-activity radioactive wastes brought to the site from around the country in the 1940s and 1950s. The USACE mission at the NFSS consists of three components. First, the USACE serves as the federal site operator and maintains the facilities and grounds to ensure physical and environmental security. Second, the USACE conducts an environmental surveillance program to ensure that the wastes stored in the IWCS are not migrating off site or subjecting the public to a radioactive dose exceeding federal standards. Third, the USACE is conducting a comprehensive environmental investigation of the IWCS, site soils, groundwater, facilities and infrastructure to evaluate the nature and extent of contamination, the associated human health and ecological risks, and the cleanup alternatives to mitigate risk for long term future land use. The USACE works closely with local, state, and federal law enforcement and homeland security specialists to ensure the site's physical security. The USACE coordinates project activities with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2009 funds were used to complete the Draft NFSS Feasibility Study (FS) Work Plan and two FS Technical Memoranda (TM), complete all environmental surveillance, site operations, and maintenance activities, award contracts for completion of the Remedial Investigation Report (RIR) Addendum, award a contract for the characterization of investigative derived wastes for off-site disposal, and execute public information sessions and outreach activities on the RIR Addendum and FS.

American Recovery and Reinvestment Act (ARRA) funding is being used to award contracts for completion of a digital record file, design and installation of physical and electronic security systems, and demolition and off-site disposal of Building-401.

In FY 2010 the Corps completes all environmental surveillance, site operations, and maintenance activities, prepares the Draft RIR Addendum, completes the NFSS FS Work Plan, finalizes two FS Technical Memoranda and the characterization of investigative derived wastes, awards contracts for the off-site disposal of investigative derived wastes and the completion of the IWCS Feasibility Study, and executes public information sessions and outreach activities on the RIR Addendum and FS.

In FY2011 funds will be used to complete and publicly release the RIR Addendum and FS Technical Memoranda to support the NFSS IWCS Feasibility Study, continue drafting the ICWS FS Report, execute public information sessions and outreach activities, complete off-site disposal of investigative derived wastes, and accomplish annual environmental surveillance and maintenance activities.

* The scope of this project includes seven Operable Units (NFSS-IWCS, NFSS Soils, NFSS Groundwater, NFSS Off-Site Underground Utilities Impacts, and the Off-Site Vicinity Properties E, E-Prime, and G).

** Updated Federal costs for the NFSS-IWCS is expected to be completed in 2012 with the completion of the IWCS Feasibility Study. The ultimate Federal project cost for closing out all Operable Units will be known upon completion of Records of Decision for all seven Operable Units.

*** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and RODs for all Operable Units and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Seaway Site Tonawanda, NY Buffalo District	44,230,224	9,162,502	100,000	N/A	350,000	250,000	34,367,722

The Seaway Site is located between River Road and the I-190 expressway in the Town of Tonawanda, 10 miles north of Buffalo, New York. The Seaway Site is owned by Benderson Development Corporation and is a closed sanitary landfill of 93-acres. The site is contaminated with radiological wastes, disposed in the landfill, which originated from the Linde site approximately 2 miles to the east. During the 1940s the Linde Division of the Union Carbide Corporation processed uranium ores in support of the Manhattan Engineering District (MED) activities to develop the nation's first atomic weapons. At the Seaway Site, approximately 16 acres of the closed landfill are contaminated with radiological waste, including thorium, uranium and radium. There are six areas associated with the Seaway Site; Areas A, B, C, D, and Seaway Southside and Seaway Northside. Cleanup of accessible (i.e., outside of the landfill) Area D soils was included in the Record of Decision (ROD) for the remediation of the Ashland 1 and 2 Sites. During remediation of the Ashland 1 and 2 Sites contamination was identified that extends beyond the fence line to the north and south sides of the Seaway Site that is considered as part of the Seaway Site. The USACE coordinates project activities with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2009 funds were used to complete a statistical analysis of potential cost and schedule risks and impacts to accomplish cleanup at the site and complete the Record of Decision (ROD). The ROD selected Alternative-6 "Containment with Limited Off-Site Disposal" as the long-term remedy for the site.

In FY 2010 the Corps publicly releases the ROD, supports environmental outreach activities, and begins remedial design activities to implement the ROD including the preparation of the Interim Final Land Use Control Plan. This plan will document the Federal actions with respect to future land use controls to ensure the protectiveness of the ROD.

In FY 2011 funds will be used to complete the Interim Final Land Use Control Plan and provide environmental outreach services as needed.

*The schedule to initiate and complete remedial action will depend on national program funding priorities and constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2011

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Sylvania Corning Plant Hicksville, NY New York District	TBD*	5,070,000	3,000,000	4,500,000	4,500,000	1,243,000	TBD*

The Sylvania Corning Plant (Hicksville) site consists of a total area of 10.5 acres divided into three separate properties located at 70, 100, and 140 Cantiague Rock Road. The Verizon entities, current owners of the 140 and 70 properties and lessees of the 100 property, are the corporate successors to the Atomic Energy Commission's (AEC) contract operator. The facility was used for two distinct but similar operations. The first operation (1952-1965) was under contracts with the AEC for research, development and production primarily in support of the Government's nuclear weapons program. The other operation (1952-1967) was AEC licensed work primarily for the production of reactor fuel, and other reactor core components. Radioactive materials, metals and volatile organic compounds were discharged to the plant sumps, which contaminated site soils and groundwater. Coordination is ongoing with the New York State Department of Environmental Conservation, and Verizon entities.

FY 2009, the Corps continued a Remedial Investigation and Baseline Risk Assessment and stakeholder coordination.

American Recovery and Reinvestment Act (ARRA) funds are being used to expedite the remedial investigation of contaminated groundwater at the site.

In FY 2010, the Corps is completing the Remedial Investigation and Baseline Risk Assessment.

FY 2011 funds will be used to finalize the draft RI and commence the preparation of a Feasibility Study.

*Study costs only, a preliminary cost estimate for site remediation, if necessary, will be determined during the development of the Feasibility Study. The completion schedule will depend on the cleanup standards for the site established in the Record of Decision and overall funding constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Tonawanda Landfill Vicinity Property Tonawanda, NY Buffalo District	4,810,375	0	750,000	901,733	575,000	1,775,000	808,642

The Tonawanda Landfill Vicinity Property is located in the Town of Tonawanda, a suburb north of Buffalo, NY. The Tonawanda Landfill Vicinity Property consists of two separate parcels of property, or Operable Units; the Tonawanda Landfill Operable Unit (OU) and the Mudflats OU, both located about one mile north of the Linde Site. Both Operable Units are owned by the Town of Tonawanda. The Tonawanda Landfill OU was operated as a municipal landfill by the Town of Tonawanda from the 1930s through 1989, and accepted a variety of waste including incinerator ash, sewage sludge, construction debris, municipal waste, and yard waste. The Mudflats OU is a vacant property, apparently used in the past for pasture or agricultural purposes, and most recently used by the Town of Tonawanda for temporary storage of yard waste, mulch, road repair debris, etc. The Town of Tonawanda is currently planning to develop the Mudflats for commercial use. Early investigations by the US Department of Energy (USDOE) found isolated locations at the site contaminated with Formerly Utilized Remedial Action Program (FUSRAP) material. However, no documentation has ever been found indicating the origin of the material or how it was placed at the site. The USACE completed a Remedial Investigation in 2005, and issued a Proposed Plan for the site in 2007, which recommended No Action for both the Tonawanda Landfill and Mudflats OUs. A No Action Record of Decision was issued for the Mudflats OU in 2008; however, based on public comments received on the Proposed Plan, the Corps intends to conduct additional sampling in the Tonawanda Landfill OU to confirm whether a hazard exists that warrants further action. Project activities are coordinated with the New York State Department of Environmental Conservation, the New York State Department of Health, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY 2009, funds were used to complete the scope of work for sampling in the Tonawanda Landfill Operable Unit (OU) and award the sampling contract.

American Recovery and Reinvestment Act (ARRA) funds are being used to execute a contract to complete supplemental field sampling in the Tonawanda Landfill OU.

In FY 2010, the Corps completes the sampling of the Tonawanda Landfill OU, and begins preparation of the updated Baseline Risk Assessment (BRA).

In FY2011 funds will be used to complete the updated BRA and publicly release the findings, and based upon the results, the Corps will make a decision to either proceed with a "No Action" Record of Decision, or initiate a Feasibility Study to identify and evaluate potential long-term remedies to mitigate unacceptable human health/ecological risks at the site.

* The total cost currently reflects investigation costs through completion of the Record of Decision for the Tonawanda Landfill OU. Remediation costs will not be estimated until a determination is made whether remediation is required for the Tonawanda Landfill OU, based on the results of the supplemental investigations.

OHIO

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Former Harshaw Chemical Company Cleveland, OH Buffalo District	18,255,551	13,540,000	850,000	N/A	1,500,000	800,000	1,565,551

The former Harshaw Chemical Company site is located at 1000 Harvard Avenue, approximately 3 miles south of downtown Cleveland, OH. The site consists of 12 real estate parcels owned by several owners including BASF Incorporated and Chevron Corporation. The site is approximately 40-acres in size and is located in a predominately industrial setting on the banks of the Cuyahoga River. From 1944 through 1959, the Manhattan Engineering District (MED) and the Atomic Energy Commission (AEC) contracted the Harshaw Chemical Company to process uranium in support of the Nation's early atomic energy program. Various forms of uranium were produced for shipment to Oak Ridge, Tennessee, for isotopic separation and enrichment. In 1960, the site was released for unrestricted use by the AEC, following decontamination efforts by the Harshaw Chemical Company, under the guidance of the AEC. The USACE coordinates project activities with the Ohio Environmental Protection Agency, the Ohio Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2009 funds were used to complete the site-wide Revised Remedial Investigation Report, initiate the site-wide Feasibility Study (FS), and prepare a "No Action" Proposed Plan (PP) for the Investigative Area-06 parcel.

In FY 2010 the Corps publicly releases the Revised Remedial Investigation Report and "No-Action" PP for Investigative Area-06 parcel, awards the contracts to complete the Feasibility Studies for site-wide soils and groundwater, decommissions groundwater wells, and prepares the Record of Decision for the Investigative Area-06 parcel.

In FY 2011 funds will be used to complete the Draft Feasibility Study for site-wide soils and groundwater, initiate the Proposed Plans for site-wide soils and groundwater, and complete the Record of Decision for the Investigative Area-06 parcel.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Luckey Site Luckey, OH Buffalo District	326,033,503	16,873,705	500,000	1,118,000	1,550,000	500,000	305,503,798

The Luckey Site is located at 21200 Luckey Road near the village of Luckey OH, 22 miles southeast of Toledo. The site is approximately 40-acres in size and is a former magnesium processing facility built in 1942 by the Federal government. The site is currently owned by Abdoo Wrecking, LLC. In 1949, the Atomic Energy Commission (AEC) constructed a beryllium production facility at the site which was operated by private contractors. The waste solutions and sludge from the beryllium production operations were stored in lagoons on the property. Waste solutions were also discharged into Toussaint Creek. In 1951 and 1952, the site operator purchased 1,000 tons of radiologically contaminated scrap steel from the Lake Ontario Storage Area in Lewiston, NY. The scrap steel is believed to be the source of the radiological contamination. In 1958, beryllium production operations ceased and in 1961 the Federal General Services Administration transferred the property to private ownership. FUSRAP contamination on site consists of both radiological and chemical wastes. The primary radiological contaminants at the site include radium, uranium and thorium. The primary chemical contaminants at the site are beryllium and lead. The USACE coordinates project activities with the Ohio Environmental Protection Agency, the Ohio Department of Health, the U.S. Environmental Protection Agency and the public through a diverse environmental outreach program.

In FY 2009 funds were used to continue remedial design, decommission background monitoring wells, and conduct annual groundwater sampling The USACE also completed a statistical analysis of potential cost and schedule risks and impacts to accomplish cleanup at the site.

American Recovery and Reinvestment Act (ARRA) funding is being used to complete field investigations to gather data and further refine the contaminated soil volume estimates which will reduce cost and schedule risk for completing the project.

In FY 2010 the Corps completes field characterization to refine the contaminated soil volume estimate, continues the remedial design process, rehabilitates site groundwater monitoring wells, and conducts annual groundwater sampling and testing to monitor potential migration of radiological contaminants in groundwater.

In FY 2011 funds will be used to finalize the soil volume estimation report, complete the remedial action scope of work and, perform annual groundwater sampling and reporting activities.

*The schedule to initiate and complete remedial action will depend on national program funding priorities and constraints.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Painesville Site Painesville, OH Buffalo District	60,845,345	25,357,353	1,000,000	15,246,094	6,425,000	7,500,000	5,316,898

The Painesville Site is a privately owned 30-acre site located approximately 22 miles northeast of Cleveland, Ohio. In the early 1940's, the Defense Plant Corporation financed construction of a magnesium production facility on property acquired by the Federal Government. The Diamond Magnesium Company received approximately 1,650 tons of FUSRAP-related radiologically contaminated scrap steel from the Lake Ontario Storage Area, which resulted in contamination of the site. The site is contaminated with radiological waste, including uranium, radium, thorium, and their natural decay products. This site is currently owned by Chemtura, Inc. Uniroyal Rubber Co., Inc., a predecessor to Chemtura, closed this facility in July 1999. The plant has been demolished and the owner is performing environmental remediation for chemical contamination. 1,330 cubic yards of contaminated soils were removed from the site in the fall of 1998 under an Engineering Evaluation/Cost Analysis (EE/CA) and Action Memorandum. Circumstances did not permit complete removal of radiological contamination under the EE/CA so the Corps initiated a focused Remedial Investigation/Feasibility Study (RI/FS) to determine the extent of additional contamination and establish the final cleanup criteria. The Corps completed the Proposed Plan in 2005, and the Record of Decision was signed in 2006 establishing the remedy of excavation and off site disposal of radiological contaminants exceeding the cleanup criteria. Site remediation was initiated in 2007; however, additional soil contamination found during the site remediation effort required that remediation be halted in 2008, due to funding and contract capacity constraints. The total estimated volume of contaminated soil has increased from the original estimate of 5,800 cubic yards (cy) to 35,100 cy, which will require a funding increase of approximately $32,800,000 to complete site remediation. To date, 9,400 cy of contaminated soil have been excavated and disposed of from the site. The Painesville site is being coordinated with the Ohio Environmental Protection Agency, the Ohio Department of Health, and the U.S. Environmental Protection Agency. and the public through a diverse environmental outreach program.

In FY 2009 funds were used to award the remedial action contract, transport and dispose of stockpiled contaminated soil, conduct soil volume uncertainty sampling, and update the contaminated soil volume estimate. The USACE also completed a statistical analysis of potential cost and schedule risks and impacts to complete cleanup at the site.

American Recovery and Reinvestment Act (ARRA) funding is being used to fund the remediation contract for removal of contaminated soils for off-site disposal.

In FY 2010 the Corps completes remedial work plans, resumes remedial action fieldwork, and ensures contractor performance and compliance with Corps standards for quality, safety, and health.

In FY 2011 funds will be used to fund contracts for the completion of the Painesville site remediation (at the 80% confidence level for contaminated soil volumes.)

*The completion schedule will depend on actual volumes of contaminated soils encountered at the site and national program funding priorities and constraints.

PENNSYLVANIA

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation for FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Shallow Land Disposal Area (SLDA) Parks Township, PA Pittsburgh District	193,536,810	11,090,000	3,500,000	5,000,000	12,200,000	17,000,000	144,747,056*

The Shallow Land Disposal Area (SLDA) site encompasses 44-acres of land located in Parks Township, Pennsylvania located about 23 miles northeast of Pittsburgh, Pennsylvania. A nuclear fuel production facility located in Apollo, Pennsylvania generated wastes that were emplaced into a series of 10 trenches at the Shallow Land Disposal Area (SLDA) from the period 1960 to 1970. The contamination is believed to consist primarily of uranium and thorium associated with production of nuclear materials at the Apollo facility. The 10 trenches occupy an area of about 1.2 acres of the 44-acre Shallow Land Disposal Area. The site is currently owned by BWX Technologies and operates under a Nuclear Regulatory Commission (NRC) license. Any future U. S. Army Corps of Engineers (USACE) activities at the site will be consistent with the Memorandum of Understanding (MOU) between the USACE and the NRC for coordination on cleanup and decommissioning of the FUSRAP sites with NRC-licensed facilities, dated July 5, 2001. This project is being coordinated with Pennsylvania Department of Environmental Protection, Pennsylvania Department of Health and USEPA.

FY 2009 funds were used to complete remediation work plans, the draft Final Status Survey Plan and necessary real estate actions.

In FY 2010, the Corps is completing the Final Status Survey Plan and initiates site remediation.

American Recovery and Reinvestment Act (ARRA) funding is being used to remediate two trenches at the site. This work is scheduled for completion by the end of FY 2010.

FY 2011 funds will be used to continue site remediation.

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*Based on cost estimate for site remediation contained in the ROD (September 2007) plus the administrative cost developed in December 2007.

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Superior Steel Site Scott Township, PA Buffalo District	13,909,754 - TBD	215,000	0	N/A	50,000	350,000	13,295,000 - TBD

The former Superior Steel Site is located in Scott Township, PA about five miles southwest of downtown Pittsburgh. The Superior Steel Site property is a 25-acre site which has five interconnected warehouse buildings (known as "Building 23"). The site processed uranium metal in support of the Atomic Energy Commission (AEC) fuel element development program between 1952 and 1957. In addition, the site was commercially licensed by the AEC in 1956 to"...receive possession of thorium metal for rolling and cutting" until the license expired in 1958. The AEC operations at the Superior Steel Site resulted in uranium-contaminated building surfaces and subsurface contamination and a collection of investigation-derived waste from a previous remediation by the current site owner, a small manufacturing firm "Superbolt, Incorporated". The USACE is authorized under the FUSRAP to investigate and respond to AEC contamination at the site. Any residual radioactive contamination resulting from the former commercial processing of thorium metal is not eligible for cleanup by the USACE under FUSRAP. The USACE coordinates proposed investigative and remedial activities with the Pennsylvania Department of Environmental Protection, the U.S. Environmental Protection Agency, and the public through a diverse environmental outreach program.

In FY2009 the Superior Steel Site was added to the FUSRAP Program. No funds were allocated or expended on this project.

In FY2010 the Corps completes the first deliverable in the Remedial Investigation – an analysis of historic aerial photographs which may identify past AEC impact areas and ground disturbances to be targeted for field sampling later in the investigation.

In FY2011 funds will be used to award a contract to complete the second deliverable in the Remedial Investigation – the Site Ownership and Operational History (SOOH) Report. This report will establish a historical record of past AEC and non-AEC operations, potential environmental impacts, and a legal analysis of potential environmental liabilities for site owners and operators.

* The total estimated federal cost reflects a preliminary estimate of costs to complete the study phase of the CERCLA process through the Record of Decision (ROD). A preliminary cost estimate for a range of potential long-term site remedies will be developed in the FS.

** The completion schedule for this site will depend on the USACE selection of potential long-term remedies (cleanup standards and technologies) developed for this site in the RI, FS, PP, and ROD and on the national program funding priorities and constraints.

APPROPRIATION TITLE: Formerly Utilized Sites Remedial Action Program, Fiscal Year 2011

NATIONAL

Site	Total Estimated Federal Cost $	Allocation Through FY 2008 $	Allocation for FY 2009 $	ARRA Allocation $	Tentative Allocation FY 2010 $	Requested Allocation FY 2011 $	Additional to Complete After FY 2011 $
Potential Sites / Contingencies	TBD*	2,684,000	4,216,000	N/A	1,025,000	882,000	TBD*

The Department of Energy (DOE) considered several hundred sites in the public and private sectors for the potential for residual radioactive contamination as a consequence of work accomplished in support of nuclear energy technology development that began in the early 1940s by the Manhattan Engineer District (MED). Of these considered sites, a limited number initially were designated for remediation under FUSRAP and the others were eliminated from further consideration at that time. Thereafter, the DOE notifies the Corps of new information changing the status of eliminated sites to that of eligible according to FUSRAP criteria.

FY2009 funds were used to complete preliminary assessments at a number of sites referred by DOE, and if necessary, site inspections or other activities to determine if there is a release or threat of a release of a hazardous substance into the environment that will present an imminent and substantial danger to public health or welfare, and whether the site should be added to FUSRAP as an active site for further study and remediation.

FY2010 funds are being used to complete preliminary assessments at a two sites recently referred by DOE.

FY2011 funds also will be used to complete preliminary assessments for sites referred by DOE and to handle minor project contingencies.

*To Be Determined (TBD). Any new sites added to FUSRAP as a result of the preliminary assessment/site inspection performed with these funds will be included in future budgets.

RECREATION

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Budget/Management Support for O&M Business Programs

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$6,792,000
Appropriation for FY 2009	$5,865.000
Budget for FY 2010	$6,792,000
Increase in FY 2010 from FY 2009	$927,000

Performance Based Budgeting Support Program $4,000,000

AUTHORIZATION: The Government Performance and Results Act of 1993 (GPRA) and under general authorities contained in various laws.

JUSTIFICATION: The President's management agenda and GPRA requires that the Corps implement performance based budgeting for Civil Works Operations and Maintenance, General Program. The Performance Based Budgeting Support Program addresses this requirement by the collection, management and distribution of data; seeking new methods for linking performance to annual budget requests; and for analyzing the potential economic impacts on customers of varying budget levels.

a. Civil Works Business Function Information: Provides critical data and information related to Civil Works project inventories, outputs and performance measures; and for the operational and strategic management of Corps' projects, programs, budget development and studies that directly support the Navigation, Hydropower, Recreation, Environment (Stewardship, Compliance, Restoration), Water Supply and Flood Risk Management Business Line missions. This information supports the Corps O&M program and is the sole source for the Corps, other Federal agencies, partners, stakeholders, and public. These funds include supporting the database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and ACE-IT services. It is reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for $1,568,000 of the overall OMBIL-Plus costs. Lack of funding for this program would significantly reduce the Corps' ability to produce efficient, effective, and timely performance measures for budgeting, management and the PART.

b. Civil Works Performance Measurements: Work includes improvement of performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget's Performance Assessment Rating Tool (PART) initiative; and support for the future Corps budget preparation process. Efforts focus on the refinement of corporate performance principles; and program and project level performance measures that focus on anticipated performance and output at different levels of funding in accordance with the revised finance and accounting cost codes that now align with the O&M business processes - navigation, hydropower, flood risk management, recreation, water supply and environment. These measurements, at different organizational levels, provide the analytical basis to identify the incremental return on investment in Corps programs at various funding levels and to make adjustments in priorities both at the program and project levels concerning efficiency of facilities or services. Comparison of measurements among projects at all levels helps focus management attention on corrections of program or project deficiencies.

c. Civil Works Business Analysis: This task analyzes data using statistical and other analytical techniques and tools to uncover relationships among budget, expenditures and performance within and between Corps business processes. The relationships and statistics drawn from the data may provide evidence to support an increase in expenditures to improve performance. This task will also develop effective graphics to explain relationships found in the data and allow decision-makers to visualize cause and effect. This task links the data gathering, collection and distribution, and use of data in the decision-making process.

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PROPOSED ACTIVITIES FOR FY 2011: FY 2011 funds will provide continuing support of Civil Works O&M integrated information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2010 funds will also support enhanced development of output-oriented performance measures of the incremental return on investment in Corps Civil Works program areas, including acquisition and training in decision-making software. The funding provides enhanced support to flood risk management, environmental restoration, and the data entry modules for natural resources.

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource collection system and user's training in OMBIL data entry and access. The One-stop access for much of Civil Works budget performance information was expanded for budget submittals in lieu of separate data calls. Critical business and performance data was supplied to the recreation and environment-stewardship budget tools in FY05-FY08. A new data collection module was created in FY07 to support water supply as a new Civil Works business line,. Performance data was merged with P2 for use in the navigation budget development process in FY07 and FY08.

Recreation Management Support Program $1,650,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The recreation program serves almost 400 million recreation visitors and generates about $40 million in revenue annually. Visitors spend over $18 billion annually to engage in recreation at Corps projects; over 350,000 full and part time jobs are associated with this spending.

The RMSP supports the recreation program through the conduct of focused management studies to improve operational efficiencies and the provision of technical assistance, to include technology transfer and technology support and maintenance for recreation specific automated information systems. The RMSP supports strategic planning for and performance monitoring of the Corps recreation business program, subject to the Government Performance and Results Act (GPRA).

The RMSP has 3 major components, which together provide comprehensive support to the Corps Recreation Business Program:

1. Focused Management Studies. RMSP provides focused management studies and reports to acquire and analyze information about recreation trends, accessibility, emerging issues, user conflicts, visitor diversity, use fee impacts and similar elements affecting the Corps recreation program. Analyses are conducted to support the recreation area modernization program, implementing facility and service standards, and in similar product delivery improvement efforts. Information and technology transfer pursuant to these studies is funded by the RMSP. Ongoing trends analysis provides valuable data on which to base decisions about necessary short and long term adjustments to the program to meet public needs.

2. Management/Technical Assistance. RMSP provides technical assistance to the Recreation Community of Practice in the development of management tools, which quantify recreation program outputs and relate them to customer needs and budget allocations for the purpose of measuring performance. This includes gathering and analyzing information about customer satisfaction with the Corps recreation program. RMSP assures the field workforce is equipped with "state-of-the-art" skills and knowledge to deal with a rapidly changing public. RMSP provides technical support and maintenance of performance based budgeting tools, visitation monitoring and analysis systems, fee collection and reporting, economic analysis, facility inventory and condition assessment, and similar automated information programs. RMSP provides short-term assistance to projects in solving specific technical problems.

Budget/Management Support for O&M Business Programs

3. Support to Recreation Program Strategic Planning. Funding to support the activities of the Recreation Leadership Advisory Team (RLAT) is included in this program. The RLAT is composed of representatives from the division, district and project levels of the Corps natural resources management program. It provides input, advice and support to the Corps strategic planning for the recreation business program.

PROPOSED ACTIVITIES FOR FY 2011: Minimum/Recommended Program: The Recreation Budget Evaluation System (RecBEST) will be refined to increase the capability to monitor and report Recreation performance measures and evaluate and prioritize budget submissions in response to OMB guidance. The Recreation module of the Natural Resource Management Gateway will be further developed to address high priority needs. Demonstrations will be conducted to identify and communicate the benefits of the Corps recreation program and improve effectiveness in addressing the needs of ethnic minority visitors. Emphasis will be placed on improving recreation use monitoring procedures that will be incorporated into recreation performance measures. Customer satisfaction survey methods and benchmarking capabilities will be refined and fully integrated into program performance measures. Technical support will be provided to field staff to implement improved procedures. Support will be provided to standing NRM committees and task forces including: Recreation Program Performance Improvement Initiative, Recreation Entrance Fee Policy Development, Partnerships Demonstration Program, Water Safety, Career Development etc. Support will be provided to Headquarters Recreation program staff regarding strategic planning, development of program evaluations and other high priority Headquarters initiatives. Provides resources for evaluation tasks associated with the implementation of the National Recreation Program Road Map.

ACCOMPLISHMENTS IN PRIOR YEARS:

Past products include Recreation Budget Evaluation System (RecBEST), visitation estimation methodology and data collection and reporting tools, economic impact methodology and analysis tools, customer satisfaction survey and benchmarking tools implemented at all CE projects, studies on recreation preferences of ethnic groups including cross-cultural communication issues, and support for development of a strategic context as a foundation for transitioning to a performance based environment, to include performance based budgeting. The Natural Resources Management Gateway was developed as a knowledge management tool for the NRM community and is compatible with other Corps KM and Community of Practice initiatives. The Corps Lakes Gateway was developed and provides information to millions of visitors annually on recreation opportunities at Corps projects. The Corps Lakes Gateway also delivers Corps recreation information to the interagency RecreationOneStop project in support the Administration's E-GOV initiative. Guidance and appropriate tools were developed to improve interpretive services associated with the CE recreation program that advance the public's understanding of the environment and the Corps Environmental Operating Principles. Support to Headquarters was provided to refine the recreation business program strategic plan, utilizing input from the RLAT and stakeholders. Goals and objectives were refined, and actions identified to achieve them. Innovative partnership approaches were developed and field guidance prepared to improve stakeholder participation. Stakeholder outreach was conducted to develop partnerships for strategic initiatives.

Stewardship Support Program $750,000

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program (SSP) was established in FY 02 to provide broad support to Environment-Stewardship function at operating projects by assisting in the identification of national program needs, the development of new national program activities, strategic program planning, and the recommendation of national stewardship program funding priorities. Support will be provided in refining the Environment–Stewardship business program strategic

Budget/Management Support for O&M Business Programs

plan and goals, and budget processes, to address the targeted outcomes of the overall Corps CW Strategic Plan, using input from the Stewardship Advisory Team, other associated Corps business programs and stakeholders. Goals and objectives have been refined, and actions will be identified to achieve them. Funding this program from a single source reflects the nationwide application and supports standardization in program direction and outputs.

The SSP supports the Environment–Stewardship program by addressing issues or initiatives that have a broad applicability to many USACE Civil Works projects. The three basic components of the SSP are:

(1) Focused Management Actions and Studies. These activities are to implement a course of action or practice within field office activities, a region, or nationwide. Examples of management actions might include developing/ assembling an array of management practices for establishing riparian habitat, or creating a forum to share common experiences, build teams, and disseminate information. Examples of management studies might include the riparian corridors research or conducting studies on management of threatened and endangered species.

(2) Policy Guidance and Management Support. Such activities relate to the development and/ or implementation of guidance. Examples of policy guidance included facilitating cooperative agreements with stewardship non-governmental organizations, or amending the annual Budget Engineer Circular to provide emphasis on conducting inventories of regionally or nationally significant resources.

(3) Information Exchange. These activities are designed to build, integrate, and share our knowledge base to support greater understanding of the environment and the impacts of program work.

PROPOSED ACTIVITIES FOR FY 2011:
The SSP will conduct focused management action studies and recommend guidance to address high priority program efficiency and effectiveness concerns, including responses to findings that result from an independent assessment of the stewardship business program area. Efforts will continue in support of performance based budgeting including further development of performance measures, development of strategies to improve program outputs and outcomes, and refinement of E-S BEST and related guidance to monitor program performance. Provides national support for two areas of strategic and performance priority within the Environmental Stewardship program. Identifying threats and significance of natural resources across the nation will provide a better evaluation and achievement of national strategic goals. Under the additional funding new technologies and national data sets will be utilized to more objectively and accurately evaluate threats and significance. Funding will also assist in the completion of the level one natural resources inventory and assessing conditions of project lands. Progress in recent years on developing standards, published protocols and web-based data entry programs have resulted in improvements in advancing completion of the inventories. Increased technical support to the field will provide training and guidance to assist in completion of the level one inventories during 2011. This funding will result in completion of one of the PART measures and allow focus of 2012 funding to be targeted to other high priority needs.

The SSP will also continue support of the Environment-Stewardship Community of Practice (CoP) including further development of the NRM Gateway for information and technology exchange. These activities will provide benefits in increased program effectiveness through implementation of assessment recommendations. Improved program performance will be facilitated through increased CoP access to best practices and policy guidance, and effective development and execution of performance based budgets.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple project) activities to improve the efficiency and cost effectiveness of the Environment-Stewardship business program has been employed, with subcommittee staff knowledge and concurrence, since the late 1990s for activities similar to those identified for FY 2010. Past products of the Stewardship Support Program include the initial set of

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Environment-Stewardship program performance measures, which are in accord with the Government Performance and Results Act and used to measure and monitor priority program outputs and outcomes; the Stewardship module of the Operations and Maintenance Business Information Link (OMBIL), which receives and stores selected data concerning the stewardship of project natural resources, and which provides for retrieval of that information by all levels of the Corps; the pilot version of the Environment-Stewardship Budget Evaluation System (E-S BEST) used to assist in developing budget scenarios and ranking budget proposals. Components of the Environment–Stewardship portion of the Natural Resources Management (NRM) Gateway, a knowledge management tool for the NRM community, have been completed and others are underway. Support to Headquarters was provided to develop and refine; the Environment-Stewardship business program strategic plan and 10-year development plan, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment-Stewardship program development guidance.

Optimization Tools for Navigation (OTN) Program $392,000

AUTHORIZATION: Related efforts are necessary to provide practical quantitative & predictive tools and data for minimizing and optimizing the costs of dredging of Federal navigation projects, leveraging development & improvement of channel design criteria across the Corps, the U.S. Navy, & other government\academic institutions. These efforts are essential to providing data & analysis for efficient & effective management of critical national waterborne navigation infrastructure.

JUSTIFICATION: To maintain the Nation's Federal navigable waterways, nearly 270 million cubic yards of material are dredged in the U.S. annually. In addition, the national "2020" plan for deeper & wider channels to support emerging commercial cargo vessel designs brings great uncertainty on credible prediction of maintenance requirements. Changing political, engineering, environmental, & demographic factors will increasingly influence project costs. Additionally, constrained appropriations to support the O&M dredging program have resulted in full channel dimensions being available less than an average of 35% of the time at the 59 highest use U.S. harbors, with even lesser availability at lower use projects. This impacts the reliability and economic competitiveness of U.S. ports and raised stakeholder objections that the surplus in the Harbor Maintenance Trust Fund is not being appropriated for the purposes intended. OMB has requested the Corps develop metrics that would help demonstrate the return-on-investment to justify increased dredging funds. The National Navigation Operation & Management Evaluation Assessment System (NNOMPEAS) is being developed with the Waterborne Commerce Statistics Center (WCSC) to demonstrate whether such a metric can be provided across all harbors and waterways. This tool will use domestic & foreign trade data to determine & analyze the loaded drafts of vessels of all recorded vessel calls for individual harbors and channels & will provide for estimation of transportation cost benefits foregone with reduction or absence of maintenance and will offer the potential to optimize maintenance dredging requirements for individual channel reaches & across much of the overall USACE dredging program. The NNOMPEAS initiative is supported by the HQ Navigation Business Line Manager and by ASA(CW). A companion tool being developed under the OTN program is the Channel Analysis Design Evaluation Tool (CADET), which will allow sophisticated vessel hull modeling not previously available. IWR is conducting this modeling activity jointly with ERDC & the U.S. Naval Academy (USNA). CADET will render advanced technologies for methods of analysis & compilation of new physical & numerically-generated data sets descriptive of vessel movement & response within confined waterways. Technological change & emerging vessel hull configurations in the shipping industry require prudent foresight & ongoing efforts to adequately plan for future maintenance dredging activities. Resulting datasets & analytical procedures will in turn be practically applied to more accurately determine channel dimension requirements associated with evolving or foreseeable vessel designs. This vessel hull modeling effort will also generate essential data on hull designs, vessel dynamics & channel configuration in order to optimize and minimize ongoing & future maintenance dredging requirements.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Budget/Management Support for O&M Business Programs

PROPOSED ACTIVITIES FOR FY 2010: Proposed FY 11 funds will be used to accelerate the nationwide deployment of NNOMPEAS methodology and allow its use as a budgeting tool per the direction of HQ and OMB. These funds will also continue physical model hull construction & testing in collaboration with ERDC, NAVSEA-CARDEROC, the USNA, & for the coordination & technical support for vessel motion research with completion of the analysis being undertaken regarding U.S. Naval vessel requirements.

ACCOMPLISHMENTS IN PRIOR YEARS: FY 08 and FY 09 funds were used to work with WCSC and the South Atlantic Division to develop NNOMPEAS linkages between vessel call and vessel characteristic data sets, develop discrete channel segments and compile dredging costs and quantities for these segments at selected proof-of-concept harbors, and conduct test runs for these harbors. FY 09 funds also supported continued work of ERDC, CARDEROC, & IWR activities for improvements to CADET vessel hull modeling effort and initiation of physical testing of model hulls.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National (Multiple Project) Natural Resources Management Activities

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$4,230,000
Appropriation for FY 2010	4,020,000
Budget for FY 2011	4,230,000
Increase in FY 2011 from FY 2010	210,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: On December 10, 1996, House and Senate appropriations subcommittee staff determined it was appropriate to allocate a portion of Civil Works projects appropriated funds to conduct certain, specified operations and maintenance activities that benefit all or a majority of operating Civil Works projects. This determination was formalized in appropriations language in FY 2002. Funding these multiple project activities as single entities, rather than on a project-by-project basis, is efficient and cost effective, reducing administration costs and providing for efficient management and oversight. An example of such an activity is the procurement of park ranger uniforms through a contract administered by the National Park Service. Providing a nationwide funding source for centralized procurement of these items used by all operating projects having a natural resources management program precludes the need for funds to be transferred by each project or district to a single procurement agent, a savings of from 60 to 300 transactions a year.

PROPOSED ACTIVITIES FOR FY 2011:

Nationwide (multiple-project) activities that will be accomplished in FY 2011 with these funds include the following activities:

1. Environmental Management System (EMS) Implementation. The EMS has been implemented at 42 designated projects. Funding this as a nationwide activity will allow USACE auditors to review and validate EMS implementation completion at required facilities without transferring funds from each project to a central source. The development of case studies and outreach materials for lessons learned provide initiative and support for other facilities/projects wishing to implement EMS in FY10 and future years.

2. Natural Resources Management Career Development/Training Support and Material Development. Funds are used to address training and career development issues for the Natural Resources Management Community. The needs of all 2,000 NRM field staff in the Corps are served through the development of numerous products, including a number of exportable training courses to meet established training requirements. Funding this as a nationwide activity is appropriate because all NRM field staff benefit equally from the work accomplished.

3. Park Ranger/Manager Uniforms. The Corps purchases uniforms for field personnel through an inter-agency contract administered by the National Park Service. Funding this as an inter-agency effort and as a nationwide activity reduces the administrative costs by eliminating the requirement to transfer funds from each individual project to the NPS. Significant economies of scale have been achieved through this arrangement since 1984. Costs include the authorized employee allowance funds (including an HQ-approved increase in replacement allowance), NPS contract administration costs, buy out of discontinued items, program management/committee support, and the purchase of required emblems.

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National (Multiple Project) Natural Resources Management Activities

4. Printing and Publishing - Printing of forms, brochures, and similar materials used by all Corps projects achieves economies of scale and reductions in total administrative and procurement costs. Materials include Annual Day Use Passes and Brochures. Printed materials are stored at the Corps Publications Depot for distribution to all projects upon request.

5. Sign Standards Manual and Software Update and MCX Operation. A Mandatory Center of Expertise provides technical support and assistance to all projects in the operation of the Corps Sign Standards Program, through the maintenance of the Sign Standards Program Manual and software and providing technical assistance to field users. These efforts allow the Corps to maintain a consistent image that we present to the visiting public. Funding this as a nationwide activity assures competent and timely assistance to users, which increases the consistency, effectiveness and efficiency of the sign program.

6. Volunteer Clearinghouse Operation. The Volunteer Clearinghouse is operated under contract with Goodwill Industries to support volunteer efforts at all Corps projects. Funding this as a nationwide activity achieves economies of scale through the use of a single contract and reduces administrative costs by eliminating the need to transfer funds from all projects to the single contracting element.

7. Water Safety Products. The Corps Water Safety National Operating Center produces and distributes water safety products and programs to all Corps projects. Products educate and inform visitors of the dangers associated with water-oriented recreation. Significant economies of scale have been realized through the centralized administration of this program that assures current and critical topics are covered, using effective media targeted to high-risk groups. Drownings and associated lawsuits have been reduced significantly since the implementation of this program in the mid 1980's. Current command emphasis is requiring an even further reduction of fatalities during the next two years.

8. Other Nationwide NRM Activities. The following additional NRM Activities are recommended for funding to achieve cost efficiencies at the national level. Challenge Partnership Seed Funds; Critical Incident Stress Management (CISM) Program; Natural Resources Management Awards; Operations CoP Gateway; Partnership Advisory Committee; Property Protection Program; RecBEST Coach, Assist and Train Team; Career Assignment Program for Operations Project Managers; Visitor Center Initiative/Corps Story; and Bilingual Support Team.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple-project) activities to improve the efficiency and cost effectiveness of the Corps NRM program has been employed, with subcommittee staff knowledge and concurrence, since the early 1990s for activities similar to those identified for FY 2011.

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RecreationOneStop (R1S)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	65,000
Appropriation for FY 2010	62,000
Budget for FY 2011	65,000
Change of FY 2011 from FY 2010	3,000

AUTHORIZATION: These programs are conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The Recreation One-Stop initiative is to enhance customer satisfaction with recreational experiences on public lands. It improves access to recreation-related information generated by the Federal government, streamlines the systems used to manage that information, and increases the sharing of recreation-related information among government and non-government organizations. At the direction of Office of Management and Budget (OMB), Recreation.gov and Volunteer.gov was combined and is now under the umbrella of RecreationOneStop, a priority E-gov initiative on the President's Management Agenda.

PROPOSED ACTIVITIES FOR FY 2011:

RecreationOneStop (R1S) activities that will be accomplished in FY 2011 with these funds include the following activities:

1. Recreation.gov - $50,000: an interagency website providing public information about recreation opportunities on federal lands. A customer friendly recreation portal with information for planning visits to Federal recreation sites and making campground reservations. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

2. Volunteer.gov - $15,000: an interagency website coordinating volunteer activities among federal agencies. Provides a user-friendly, web based resource to citizens, offering a single point of access to information about volunteer opportunities nationwide. Volunteer.gov is a partner in the White House's USA FreedomCorps Network, and the site is also linked to the Recreation.gov website in which the Corps participates. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

ACCOMPLISHMENTS IN PRIOR YEARS: Recreation.gov provides a customer friendly recreation portal with information for viewing and planning visits on over 4,000 Corps recreation sites and activities, reserve and make payment on line. Volunteer.gov provides a comprehensive clearinghouse of Corps volunteer opportunities. The public can enter geographic information about where they want to get involved and areas of interest to access volunteer opportunities offered by the Corps. Over 60,000 volunteers at Corps projects worked 1.5 million hours, providing $30.3 million value of service in fiscal year 2009.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2011

Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

Estimated Total (FY 1994– 2020) Program cost	$44,000,000
Appropriation for FY 2010	$2,500,000
Allocation Requested for FY 2011	$2,500,000
Increase in FY 2011 from FY 2010	$0

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, repatriation, and permitting provisions that have near-term and long-term implications for Civil Works programs and projects.

JUSTIFICATION: The Native American Graves Protection and Repatriation Act (NAGPRA) addresses the recovery, treatment, and repatriation of Native American and Native Hawaiian cultural items by Federal agencies and museums. As defined by the Act, cultural items are human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony. In FY 1994, the Corps began the process of inventorying human remains and associated funerary objects and completing summaries as mandated by the legislation. In addition, the Corps is responsible for curation of cultural resource materials collected from its water resources development projects. A Mandatory Center of Expertise (MCX), located at the St. Louis District, provides overall management of the Corps NAGPRA programs and serves as an information source and a centralized base for curation compliance and contracting. The MCX will facilitate the assurance of consistent nationwide program implementation and operation. The Corps is responsible for the curation of at least 46,255 cubic feet of artifacts collected from its water resources development projects and at least 3,511 linear feet of associated records. Curation of these materials, the largest volume of all federal agencies responsible for this activity, is required by a number of public laws with implementing guidance in 36 CFR Part 79. Corps collections represent over 80 percent of the total DoD collections. These extensive collections are located in hundreds of curation facilities across the nation. The costs are to accomplish NAGPRA work and to fund MCX curation support to the districts. The MCX, in providing NAGPRA inventories, will assist in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA and because of the fragile nature of many of the artifact and record collections, the MCX is seeking to accelerate the process of effectively managing the Corps curation efforts. Funding this item will ensure full USACE compliance with NAGPRA legislation and expedite the stabilization, proper storage, and curation support to all Districts.

PROPOSED ACTIVITIES FOR FY 2011: The MCX and Corps Commands will continue the process of inventorying Native American and Native Hawaiian human remains and associated funerary objects and complete summaries of unassociated funerary objects, sacred objects, and objects of cultural patrimony as mandated by the legislation. Information will be made available to interested individuals and groups through notices in the Federal Register. Through MCX provided funding, districts will continue to be engaged in formal consultation with tribes and organizations for the legislated purpose of repatriating cultural objects for which there are legitimate claims. The MCX will continue to fulfill its chartered activities in support of other military services and DoD, lead in the implementation of an agency-wide, long-term plan for the curation of USACE archeological collections (heritage assets). The MCX will also continue to work closely with USACE commands on the implementation of final guidelines and procedures for field collection of archeological materials and the long-term treatment of those collections. In this regard, the MCX will act as a source of expertise for processing and rehabilitation of USACE collections. Finally, the MCX will provide leadership in the development of a training curriculum on the treatment of heritage assets and working in consultation with all stakeholders, take initial steps to make this training available to USACE and other appropriate DoD managers and decision makers. As Corps compliance with NAGPRA Sections 5–7 approaches completion, the MCX will place staffing and other resources in a position to accelerate the rehabilitation and long-term management of archeological artifacts collections and associated records that are assessed to be at the greatest risk of deterioration or damage. MCX-CMAC will implement the initial phases of the curation task plan, which involves addressing the rehabilitation needs of USACE's most critical archeological collections.

ACCOMPLISHMENTS IN PRIOR YEARS: A Mandatory Center of Expertise (MCX), located at the St. Louis District, was established to provide overall management of the Corps NAGPRA programs and has served as an information source, a centralized base for curation compliance and contracting. The MCX has facilitated the assurance of consistent nationwide program implementation and operation. The MCX, in providing NAGPRA inventories, has assisted in establishing the extent of Corps holdings. Associated with efforts to complete NAGPRA, the MCX began the process of effectively managing the Corps curation efforts. Corps reporting compliance with NAGPRA will approach approximately 85% by the start of FY11. A phased task plan for curation has been developed and is being implemented on at-risk collections.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Program Development Technical Support

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$75,000
Appropriation for FY 2010	$75,000
Allocation Requested for FY 2011	$75,000
Change in FY 2009 from FY 2008	$0

AUTHORIZATION: The Corps of Engineers has continuously worked to improve on methods for gathering, analyzing and submitting project funding requests, to respond to all authorized missions within the Operations and Maintenance program. An automated information system, P2, is the approved software system used for the budget development process and has aligned all Civil Works budget requests within one automated information system.

JUSTIFICATION: P2 provides the program development capability previously provided by the Automated Budget System. The launch of P2 for program development began in FY 2007 and continues in FY 2011. Work under this activity for FY 2011 will ensure that all relevant business processes and rules are incorporated into P2, as well as continuing to refine the data requirements to meet the needs of the budgeting process without creating an undue administrative burden. There will likely be changes needed to adjust P2 to support the O&M program development based on the experiences with the system. This activity will identify needed changes and recommend steps to implement the changes within P2. The technical support for O&M program development will continue to be provided using P2. The deployment of P2 shifted efforts towards development of methods and procedures for setting priorities for all civil works activities and analysis of the entire Civil Works program.

PROPOSED ACTIVITIES FOR FY 2011: Assist O&M program development as supported by P2 for the 2012 and 2013 budget submissions. Identify needed changes and recommend steps to implement changes in P2. Develop program development procedures to support the entire Civil Works program development.

ACCOMPLISHMENTS IN PRIOR YEARS: Maintained and updated the software systems, provided new tools to generate reports, provided training and support to managers. Developed program development tools within P2.

Appropriation Title: Operation and Maintenance, General -- Fiscal Year 2011

Shoreline Permit Use Study

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$75,000
Appropriation for FY 2010	$250,000
Allocation Requested for FY 2011	$250,000
Change of FY 2011 from FY 2010	$0

AUTHORIZATION: This program is conducted under the authority of Engineer Regulation 1130-2-406 Shoreline Management at Civil Works Projects.

JUSTIFICATION: There currently exist approximately 68,000 docks under the Corps shoreline use permit program. The current fee structure to recover the administrative costs has not changed since 1974, while the cost of administrating the program has increased significantly over the past 35 years. The current cost for permitting a floating facility is $35 for 5 years or $ 7 per year. These fees are returned to the treasury, as required by law, and not to the administrative unit of the Corps. Preliminary studies completed in the 1987 suggest administrative cost of a 5 year permit to be $490 for a floating facility and $ 245 for vegetation modification. In absence of a new evaluation, applying the consumer price index to the 1987 results would result in administrative cost of $800 for a floating facility and $ 400 for vegetation modification. The holders of these permits also experience significant gain in property value that in many cases exceed tens of thousands of dollars. No existing study has captured the value of docks to insure the government is fairly compensated for this value for private exclusive use. Significant resources could be obtained through return of appropriate fees to cover Corps administrative expenses while additional value may be returned to the treasury to off-set other Corps programs such as recreation fee retention.

PROPOSED ACTIVITIES FOR FY 2011:
The 2011 funding would be utilized to conduct follow-up study(s) needed and determine market valuation algorithm/process for implementing regional fee program(s) across the U.S. There will be regional differences based on real estate values and demographic projections; fee structure will include administrative expenses, assessment of added real value of the docks and process for return of revenue to Corps and the Treasury.

ACCOMPLISHMENTS IN PRIOR YEARS:
In FY10 an initial study was done to review existing fee program(s) and capture the value of existing docks for private exclusive use.

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Fish & Wildlife Operating Fish Hatchery Reimbursement (New)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$3,800,000
Appropriation for FY 2010	$4,467,000
Allocation Requested for FY 2011	$3,800,000
Change of FY 2011 from FY 2010	($667,000)

AUTHORIZATION: This program is a new line item added by House Report 111-278, dated September 30, 2009.

JUSTIFICATION: The U.S. Fish and Wildlife Service (USFWS) was authorized by Congress in 2008 to seek reimbursement from the Corps of Engineers for O&M costs incurred by National Fish Hatchery System for "de facto" mitigation of certain Corps dam projects which typically predated the National Environmental Policy Act. This resulted in a specific line item authorization in the Corps FY10 budget (see above).

PROPOSED ACTIVITIES FOR FY 2011:
The 2011 funding will be utilized to reimburse USFWS for National Fish Hatchery (NFH) O&M related to "de facto" mitigation of Corps dams identified in a MOU dated ___ January 2010.

ACCOMPLISHMENTS IN PRIOR YEARS:
In FY10 an initial amount of $4,467,000 was added to the Stewardship budget as a new Remaining Item. Deliberations with USFWS representatives resulted in revised cost estimate of $3,800,000.

EMERGENCY MANAGMENT

APPROPRIATION TITLE: Flood Control and Coastal Emergencies (FCCE), FY 2011

SUMMARIZED FINANCIAL DATA:

Annual Appropriation FY 2007	$ 0
Emergency Supplemental FY2007	$1,561,000,000
Annual Appropriation FY 2008	$ 0
1st Emergency Supplemental FY2008	$ 226,855,000
2nd Emergency Supplemental FY2008	$ 415,600,000
3rd Emergency Supplemental FY2008	$2,926,000,000
Annual Appropriation FY 2009	$ 0
Emergency Supplemental FY2009	$ 754,290,000
Annual Appropriation FY 2010	$ 0
Budget for FY 2011	$ 30,000,000

FISCAL YEAR 2011 DISASTER PREPAREDNESS: This activity consists of functions required to ensure that USACE activities are ready to provide baseline response to disasters and emergencies. It includes coordination and planning with key local, state and federal stakeholders/partners under the Corps' statutory authority, PL 84-99, and in support of the National Response Framework with Federal Emergency Management Agency, Department of Homeland Security. It also allows the Corps to support facilities (e.g. Emergency Operations Centers) and purchase and stockpile some critical supplies. This amount funds salaries for basic mission essential personnel at MSC/Divisions, Districts and support personnel. At this funding level for the annual appropriation, USACE will maintain a lower than historical level of critical readiness planning, training, exercise, equipment, and stockpiles.

FISCAL YEAR 2010: The FY 10 Preparedness Activities are funded by the FY09 Supplemental PL 111-32. Planning and preparedness funding should be sought as part of the regular budget process, instead of relying on emergency supplementals. Recent earthquakes, Nor'easters, ice storms and tsunamis illustrate the need for preparedness funding and the ability to provide trained staff and resources immediately after or even prior to an event.

Preparedness includes coordination, planning, training, and the conduct of response exercises with key local, state and federal stakeholders. It also allows the Corps to purchase and stockpile critical supplies and equipment and support facilities (Emergency Operations Centers), including the purchasing and upgrading deployable tactical operations systems (DTOS). DTOS allows USACE to provide immediate emergency aid to a disaster stricken community; these upgrades will be undertaken over a 3-year period. These activities ensure USACE personnel assigned to emergency assistance are trained and equipped to accomplish their missions. This includes, but not limited to, personnel assigned to Emergency Operations Centers, Crisis Management Teams, Crisis Action Teams, Regional Response Coordination Centers, Planning and Response Teams, Special Cadres, Levee Inspection Teams and general response personnel.

Major preparedness efforts include reviewing and updating response plans based on lessons learned from recent disasters; training of personnel and teams to develop critical skills which enhance the capability to respond under adverse conditions; procuring and prepositioning critical supplies and equipment (i.e., sandbags, pumps) which likely would be otherwise unavailable during the initial response stages; periodic exercises to test and evaluate plans, personnel, and training; inspection of non-Federal flood control projects to ensure their viability to provide flood protection and assess their eligibility for post-flood rehabilitation; laboratory support for field operations; serving as a liaison to state and local governments and other federal agencies; and effective management to ensure workable, coordinated efforts to meet the needs of disaster victims. The funding identified under All-Natural Hazards Preparedness Activities reflects expanded national and regional planning, training and coordination to support response to all natural disasters that includes disasters under the umbrella of the National Response Framework.

National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$8,000,000
Appropriation for FY 2010	6,652,000
Budget for FY 2011	6,750,000
Change in FY 2010 from FY 2010	98,000

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act.

JUSTIFICATION: Budgeted funds will enable the Corps to be prepared to accomplish its continuity of operations and continuity of government responsibilities during national/regional crises. This entails support of civil government through coordinated execution of federal agency plans and the planning/conducting of limited exercises to test readiness to provide such support. Executive Orders 10480 and 12656 and the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121 et seq. are the basis of the National Response Framework. The cited executive directives assign significant responsibilities for such preparation (planning, training, research and testing) to the Corps. This includes responsibility for development of comprehensive national level preparedness plans and guidance for response to all regional/national emergencies, whether caused by natural phenomena or acts of man, plans for response(s) to acts of terrorism, and the local preparedness necessary to support Corps continuity of operations. The Corps provides engineering and construction support to state and local governments in response to catastrophic natural/technological disasters. Rapid response to disasters of a regional/national magnitude requires that extensive pre-emergency planning and preparedness activities be conducted to assure the availability of a work force capable of shifting from routine missions to crisis operations and the organizational command and control structure(s) necessary to provide a coordinated and comprehensive response in the critical early stages of a catastrophic disaster.

This program provides the activities necessary to prepare for response to catastrophic natural and technological disasters requiring major Federal support of state and local governments overwhelmed by a disaster event. The preparation requires the development of plans, training of employees, conducting training exercises, including support to FEMA exercises and coordination within DOD and with other Federal agencies and state and local governments. Unlike the Corps Civil Works programs related to individual project planning, development and operations and maintenance, NEPP requires the development of an integrated command planning and response capability. Corps divisions have a key role in the planning, coordination and operational control of multi-district response(s) and the integrated preparedness effort required for accomplishing this response. Preparation also includes the Headquarters sponsored Corps-wide programs necessary to provide the capabilities and operational command and control required by Corps field commands in order to accomplish their NEPP responsibilities, both routinely and in specific emergency response situations. NEPP also provides USACE with the ability to engage and coordinate readiness with other agencies at the National level on programs of Federal primacy or interests.

NEPP is complementary to the Flood Control and Coastal Emergencies (FCCE) appropriation. Although both programs are related to emergency situations, there is a distinct separation of responsibilities. The NEPP provides for the planning, training, and testing activities necessary to develop the capability to meet essential requirements associated with local continuity of operations and response(s) to scenario specific national/regional crises. FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-flood repair and restoration of flood and shore protection works damaged or destroyed by floods, hurricanes or wave action and Corps preparedness associated with National Response Plan/Framework mission requirements.

PROPOSED ACTIVITIES FOR FY 2010: The FY 2010 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2010 program will continue the process of catastrophic disaster planning and exercising to enable the Corps to rapidly respond to a broad spectrum of emergencies, with emphasis on natural disaster and terrorists' events that have regional and national implications, such as the Homeland Security Council's National Planning Scenarios. An effort will be made to satisfy increasing demands on the program to support multi-agency (Federal, state, and local government) requests to exercise plans focusing on regional catastrophic natural and man made disasters. Increasingly, Federal, state and local agencies are looking to the Corps in this area. Lessons learned from events such as Senior Leader Seminars, the National Capitol Region workshops, Hurricane Katrina, and the evolving New Madrid earthquake scenario, clearly indicate that the current system does not adequately provide for a response to catastrophic disasters that is timely enough or comprehensive. The Corps has initiated a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. This will result in more detailed planning and should provide for a more comprehensive response to national/regional catastrophic disasters to include terrorist attacks. More extensive coordination with Federal, state and local entities will be incorporated into plan development. In this regard, following FEMA's program focus, USACE will continue to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan, catastrophic hurricane and earthquake responses, and other man-made contingencies with national implications. Completing/Updating plans and regional readiness workshops for the New Madrid Earthquake are critical in FY 2010 as a national level exercise is planned by DHS for FY 2011. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises, aligned with the highest national priorities, within the scope of available funding during FY 2010, improved catastrophic disaster response planning and emergency management technical assistance program for technology support, development and transfer of knowledge.

ACCOMPLISHMENTS IN PRIOR YEARS: The Corps continued to emphasize a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. Extensive coordination with Federal, state and local entities has been incorporated into plan development. In this regard, following FEMA's program focus, USACE has continued to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan and other plans such as the New Madrid Earthquake, the New Orleans Hurricane, the Los Angeles Earthquake and other contingencies with national implications, such as the fifteen national planning scenarios developed by the Homeland Security Council. Additional efforts focus on continuing to strengthen COOP readiness. Exercises, involving federal, state and local officials, have contributed to a more timely and effective execution of Corps responsibilities during disasters that have national impacts. Urban Search and Rescue (US&R) Training was conducted to recertify cadre members to advanced Structures Specialists, to provide US&R-level weapons of mass destruction training to meet FEMA requirements, to prepare and conduct a new recruit Structures Specialist training course and to purchase associated equipment for the support teams. Seminars, workshops, and exercises, such as mentioned above, have strengthened partnerships and promoted mutual understanding of the roles, responsibilities and interests of USACE, FEMA, other Federal agencies, and State and local governments involved in natural disasters and terrorists' responses. They have provided an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Also, region-specific issues have been identified and addressed at exercises. National level interagency coordination continued through participation in exercises.

Facility Protection

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$ 12,000,000
Appropriation for FY 2010	$ 7,000,000
Budget for FY 2011	$ 6,500,000

AUTHORIZATION: The Energy and Water Development Appropriations Act, 2002 (PL 107-66), Consolidated Appropriations Resolution 2003 (PL 108-7), Energy and Water Development Appropriations Act 2004 (PL 108-137), Consolidated Appropriations Resolution 2005 (PL 108-447), Energy and Water Development Appropriations Act 2006 (PL 109-103), and the President's Budget proposes similar authorization for FY 2007.

JUSTIFICATION: The goal of the U.S. Army Corps of Engineers (USACE) Critical Infrastructure Protection & Resilience (CIPR) Program is to achieve a more secure and more resilient civil works critical infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade incidents and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies. The CIPR program supports the National Infrastructure Protection Plan and the National Response Framework, and it is directly aligned with the Dams Sector-Specific Plan. The objectives of the CIPR program include assessing and prioritizing Corps civil works critical infrastructure by implementing a portfolio-wide risk assessment framework. The CIPR program focus is not necessarily facility specific, as it addresses portfolio-wide resilience-enhancing efforts. This holistic, integrated framework is facilitated through the implementation of system-wide and asset-specific integrated actions for enhanced protection and resilience at USACE critical infrastructure facilities. The goals of the CIPR program are to develop, implement and sustain an integrated risk-based assessment & management framework for Corps civil works critical infrastructure; to assess and prioritize Corps civil works critical infrastructure by developing and implementing a portfolio-wide risk assessment approach; and, to improve the risk profile of Corps civil works critical infrastructure. These goals will be attained by developing methodologies tools, and solutions to address key vulnerabilities to manmade incidents, implementing effective programs to minimize consequences, improving the response and recovery capabilities using an all-hazards approach, and prioritizing life-cycle investments.

PROPOSED ACTIVITIES FOR FY 2011:

- Conduct consequence-based top screening implementation for the identification and prioritization of USACE critical infrastructure (dams and locks) facilities.
- Develop multiple-asset regional exercise efforts supporting the development of integrated regional strategies to improve disaster resilience and preparedness efforts along the same river basin.
- Develop consequence analysis and system-based interdependency assessment of critical projects.
- Develop advanced modeling and simulation for critical infrastructure.
- Develop portfolio-wide conditional risk assessment pilot at critical projects.

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ACCOMPLISHMENTS IN FY 2010:

- Initiated the development of a conditional risk assessment methodology for critical projects.
- Conducted regional resilience exercise-based efforts involving multiple facilities along the same river basin supporting the development of integrated regional strategies to improve disaster resilience and preparedness efforts.
- Implemented a Consequence-Based Top Screening (CTS) methodology for dams at USACE critical projects. The CTS will support prioritization efforts at the Dams Sector level. The CTS tool will assist to identify those facilities that could reach the most severe consequences at the national level (critical impacts to the Nation's public health and safety, economic, and/or national security).
- In collaboration with DHS, developed targeted summaries (Comprehensive Facility Reports) of key information on selected dams and locks of regional or national significance to facilitate quick regional impact assessment reporting for natural hazards and manmade incidents.
- Continued improvement of predictive damage assessment tools of water-backed embankment dams from explosive loading using data from full-scale and reduce-scale experiments
- Conducted small- and large-scale experiments using embankment, concrete dams and navigation lock models to evaluate blast-induce damage under crest- and water-side attack scenarios.
- Collaborated in interagency efforts focused on watershed basin analysis studies to analyze interdependent cascading economic impacts associated with an interruption on the inland waterway system.
- Continued interagency collaboration with the DHS Dams Sector-Specific Agency and other Dams Sector stakeholders.
- Supported additional requirements associated with surge in security measures at USACE critical projects due to increased threat levels.
- Coordinated with DHS the implementation of the Enhanced Critical Infrastructure Protection program at USACE projects.

WATER SUPPLY

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National Portfolio Assessment for Reallocations

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$571,000
Appropriation for FY 2010	543,000
Budget for FY 2011	571,000
Change from FY 2010 to FY 2011	28.000

AUTHORIZATION: Specific project authorizations, Section 216 of the River and Harbor and Flood Control Act of 1970.

JUSTIFICATION: The National Portfolio Assessment for Reallocations was a two year appraisal, initiated in FY 2008, to develop a portfolio of existing Corps of Engineer multipurpose projects to be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. During the development of the survey for this assessment, the Corps was considering two other national surveys, one on the water management aspects of Corps reservoir projects and another on sedimentation management concerns. Recognizing that gains could be made from both monetary and district responsive aspects, these three efforts were combined into one. This two year survey and assessment has is now nearing completion on:
(1) The development of a portfolio of Corps projects that identified the best candidates for opportunities for operational changes and/or reallocation opportunities to ensure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve and a better understanding of global warming issues is gained.,
(2) A paper on alternative funding arrangements for water supply reallocation studies,
(3) A database to examine the status of Corps water management from local, regional, and national perspectives,
(4) An engineering and scientific foundation for a national adaptive management program,
(5) A baseline data set for investigating the evolution of operational water management policies,
(6) An assessment of sediment infilling, its impacts to operating purposes and management practices, and
(7) A database for sediment data collection efforts.

The Corps of Engineers had previously launched a Sustainable Rivers Project in 2002. The purposes of this effort are to assess ecosystem needs downstream of Corps projects and to evaluate water management opportunities for potential operational changes and/or reallocations to enhance ecosystem values while maintaining or improving primary project purposes (e.g. flood risk reduction, water supply, and hydropower). In addition to the development of new modeling tools to support these assessments, this effort resulted in the initiation of pilot projects in eight river basins. These pilot projects seek to define ecological needs, model potential operational changes, and implement and monitor ecological outcomes resulting from the changes to the project's operation. These site-based efforts complement the national portfolio assessment by evaluating water management aspects of reservoir projects and demonstrating an adaptive management approach that can be used to ensure Corps projects maintain their existing purposes while contributing to and/or enhancing economic and ecosystem values as water demands evolve.

A report entitled "A Strategy for Federal Science and Technology to support Availability and Quality in the United States" was published by the Executive Office of the President of the United States in September 2007. This report was a product of the Subcommittee on Water Availability and Quality of the National Science and Technology Council's Committee on Environment and Natural Resources. This committee was charged with: (1) identifying science and technology needs to address the growing issues related to fresh water supplies, (2) developing a coordinated, multi-year plan to improve research to understand the process that control water availability and quality, and (3) enhancing the collection and availability of the data needed to ensure an adequate water supply for the Nation's future. As a result of the information obtained from the completed two year survey and from the initial success of the Sustainable Rivers Project pilot sites, it is clear that it would be desirable to continue the assessment and pilot demonstration efforts to address the national needs as identified in 2007 report from the Executive Office of the President of the United States.

This assessment of data program also is supported by Public Law 111-11, the Omnibus Land Management Act of 2009. Section 9508 of the law is titled, "National Water Availability and Use Assessment Program." While the direct responsibility for this is with the Dept. Of Interior, consultation with the Corps is provided for. The purposes of this section 9508 are to provide a detailed assessment of:

- The current available of water resources in the U.S.
- Significant trends affecting water availability, including each documented or projected impact due to climate change
- The withdrawal and use of surface water and ground water by various sectors
- Significant trends relating to each water use sector including significant changes in water use due to the development of new energy supplies
- Significant water use conflicts or shortages that have occurred or are occurring
- Each factor that has caused or is causing a conflict or shortage

PROPOSED ACTIVITIES FOR FY 2011: INITIAL FUNDING. Funding in the amount of $571,000 will continue the two-increment effort initiated in fiscal year 2010.

1) **Assessment of Data**. Funding in the amount of $286,000 will be used to continue the efforts initiated in fiscal year 2010 by developing in more detail the development of a national program on water management. The projected results of this effort will be to:

- Incorporate information from the Portfolio, Water Management and Sediment surveys
- Incorporate information from drought contingency plans
- Incorporate data from climate change studies
- Develop a project by project projection of water availability and sustainability over the next 10, 20 and 50 year periods
- Roll the developed data up into basin and regional projections
- Develop a program to keep the data current

2) **Sustainable Rivers**. Funding in the amount of $285,000 will be used to provide for an increase in the effort to improve the refining of the practices for evaluating evolving water demands and will be used to continue the efforts initiated in fiscal year 2010 to:

- Support the definition of environmental flow needs
- Model application
- Implementation of operational changes to meet environmental flow needs
- Monitoring and initiation of a process to revise water control plans at selected Sustainable Rivers Project pilot sites.

The experience at existing sites will be used to inform other efforts to modify project operations and refine the practices for evaluating evolving water demands.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

PROPOSED ACTIVITIES FOR FY 2011: RECOMMENDED.
1) **Assessment of Data.** No change from the Initial Funding Level
2) **Sustainable Rivers.** No change from the Initial Funding Level

ACTIVITIES IN FY 2010: The fiscal year 2010 funding of $571,000 was a two-increment effort.
1) **Assessment of Data**. Funding in the amount of $300,000 was used to continue to analyze the data collected in the Portfolio, Water Management and Sediment surveys performed in fiscal years 2008 and 2009 and complete the follow on reports. Efforts were also initiated to: expand the completed web based Water Management survey to collect data on water quality; initiate efforts to investigate climate change implications on Corps projects not in snow areas and; to outline the steps required to develop a National Program on Water Management.
2) **Sustainable Rivers**. Funding in the amount of $271,000 was used to initiate a Sustainable Rivers increment in the National Portfolio study. This funding was used to: support a Definition of Environmental Flow Needs; develop model applications; define needed operational changes; and provide monitoring at selected Sustainable Rives project pilot sties.

EXPENSES

Justification of Estimates for Civil Functions Activities
Department of the Army, Corps of Engineers
Fiscal Year 2011
($000)

APPROPRIATION TITLE: Expenses

	FY 2010 Appropriation	FY 2011 Budget	Change FY 2010-2011
1. Expenses for Headquarters & Major Subordinate Commands (MSC)			
a. Headquarters, U.S. Army Corps of Engineers			
(1) Base level Operating Expenses	$ 81,390	$ 81,390	$ 0
(2) Program Account	12,400	12,400	0
SUB-TOTAL	$ 93,790	$ 93,790	$ 0
b. Major Subordinate Commands	$ 72,877	$ 72,877	$ 0
2. Administrative Expenses for Field Operating Activities (FOA)			
a. Humphreys Engineer Center Support Activity (HECSA)	$ 6,405	$ 6,405	$ 0
b. Institute of Water Resources (IWR)	4,930	4,930	0
c. U.S. Army Engineer Research & Development Center (ERDC)	244	244	0
d. USACE Finance Center (UFC)	950	950	0
e. USACE Logistics Activity	3,627	3,627	0
f. Army Corps of Engineers – Information Technology (ACE-IT)	2,177	2,177	0
SUB-TOTAL	$18,333	$ 18,333	$ 0
TOTAL:	$185,000	$185,000	$ 0

The Expenses appropriation funds the command and control, policy and guidance, program management, national and regional coordination, and quality assurance of the civil works program. These activities are carried out by the Corps headquarters and eight division offices.

The FY 2011 Budget for the Expenses Program is the same as the FY 2010 appropriation of $185 million.

1. General Administration

The FY 2011 Budget provides 895 Full Time Equivalents (FTEs) for the U.S. Army Corps of Engineers. FTEs are allocated across the Headquarters, Major Subordinate Commands (MSC), and Support Activities. General administration comprises command and control, policy and guidance formulation, program management, national and regional coordination, and quality assurance of the Civil Works Program. Execution of the Corps' mission is decentralized across 38 districts, eight (8) MSCs, six field operating activities (FOA), including the Engineering Research and Development Center (ERDC) comprising seven (7) laboratories. The budget will enable the Corps to accomplish its workload, particularly the program and project management, national and regional coordination, and quality assurance functions. Work plans will be developed in accordance with the following priorities:

- Improving program justification statements and program documentation
- Improving budgeting and financial performance
- Increasing training to retain, maintain and improve technical competence
- Becoming a more efficient and effective organization through technology (E-government)
- Strengthening dam safety and levee safety and risk management
- Strengthening business program management for the navigation, environmental restoration and hydropower programs

	FY 2011 Request
a. Headquarters, U.S. Army Corps of Engineers	
(1) Base Level Operating Expenses	$ 81,390
(2) Campaign Account	12,400
	$ 93,790

(1) The Headquarters, U.S. Army Corps of Engineers provides executive direction and management for the civil works program. Headquarters manages and supervises the execution of civil works programs, including program development, design, planning, project management, engineering, construction, operations and maintenance of Corps projects, regulatory activities, real estate functions and research and development functions. Designation of essential functions and delineation of processes to execute these functions are retained at HQ to ensure consistent customer support across the Corps. The headquarters is also responsible for activities of the Nation's water and related environmental resources; developing and managing programs; planning, designing, constructing, and operating projects for navigation, flood control, major drainage, shore and beach restoration and protection, related hydroelectric power development, water supply, water quality control, fish and wildlife conservation and enhancement; and outdoor recreation. The headquarters assists the field command by providing command and control, policy formulation, national programs management, national coordination, quality assurance, preparation of the annual budget and legislative submission, national and international interface, resource distribution and oversight of execution, and performance measurement. The Headquarters is also responsible to improve the performance of management functions and to increase the level of effort on management initiatives. In FY2011, Headquarters, will address plan initiatives as follows:

- Improving planning capabilities through the development and update of planning guidance and training
- Expanding stakeholder coordination at the regional and national levels,
- Increasing training to retain, maintain and improve technical competence
- Managing business process transformation.

The FY2011 amount requested for the headquarters consists of two components: the base-level operating expenses of $81,390 and the Civil Works Campaign Account amounting to $12,400. The headquarters has an active program to manage its personnel resources. The Headquarters is responsible for reviewing positions to determine need and priority, consider need for new labor capability and determine which existing labor capability can be "traded out" for needed additional and/or new labor capability. Positions have been prioritized and, as opportunities arise, least important positions are eliminated, and new positions are created to respond to evolving challenges. Through this prioritization process, headquarters is planning to strengthen its future capabilities in contract management, internal review, program management for development, defense and execution of the Civil Works program, and the execution of project cooperation agreements. Under Government Performance and Results Act (GPRA), each agency is required to establish a Strategic Plan. The Corps' implementation of its Strategic Plan is called the Campaign Plan. In FY 2010, Campaign Account investments were aligned with the Corps' Campaign Plan goals. These goals are: Goal 1. Deliver USACE support to combat, stability, and disaster operations through forward deployed and reach-back capabilities; Goal 2 Deliver enduring and essential water resource solutions through collaboration with partners and stakeholders; Goal 3 Deliver innovative, resilient, sustainable solutions to the armed forces and the Nation, and Goal4 Build and cultivate a competent, disciplined, and resilient team equipped to deliver high quality solutions.

(2) The Campaign Account provides for initiatives essential to supporting the Civil Works mission deemed appropriate for direct-funding from the Expenses account and benefits HQ, MSCs and FOAs. Typically, many of the Campaign Accounts provide funding for non-headquarters staff that are normally project funded. The funding level for Campaign Account initiatives are tentatively set at the levels below:

- Campaign Account Goal 1 totals **$781.5K** for three (3) programs:

1) Concept Development, Experimental, and Exercise Program for Contingency Operations $400K/Civil Disaster Planning & Operations $245K. In support of USACE Goal 1, this program will direct USACE and its subordinate elements in the planning, preparation, and execution of concept development, analysis and experimentation that in turn support Army, FEMA, national and international missions. In the context of ongoing strategic commitments while at the same time transforming to meet the future challenges, USACE will anticipate requirements through the use of capability experiments to best inform and shape the directions of USACE for both the military environment as well as civil support to national and international missions. A continuous cycle of innovation, experimentation, testing, exercises, and updates will enable USACE to improve its capabilities to provide support to the Joint Force and Nation now and in the future.

2) Family Readiness $40K support to USACE military and civilian members and their families who are deployed with civil emergencies. Four (4) project delivery teams of 10-12 USACE employees across USACE are developing USACE policies. Funding is needed to support invitational travel orders for non-employee spouses, and to reimburse USACE districts for their employee's travel to meetings, USACE and Army Family Readiness conferences, and to train USACE activities in the implementation of the Family Readiness program.

3) Defense Occupational Environmental Health Record System $96.5K. In Department of Defense Instruction(DoDI) 6055.05, the Department of Defense requires the use of the Defense Occupational and Environmental Health Record System (DOEHRS) for recording and maintaining occupational health and environmental data. The Army established this system as a standard for industrial hygiene, hearing conservation, and some occupational health support, AR 40-5 and DA PAM 40-11. The cost provided adds to those system and operations unique to USACE (i.e., civil works functions such construction oversight, power houses, lock & dams and recreation facilities), trains individuals on the use of the system, and provide for maintenance costs.

- Campaign Account Goal 2 investments total **$4,677M** for thirteen (13) programs;

1) The Chief of Engineers Environmental Advisory Board (EAB) $70K provides the Chief of Engineers with outside, expert and independent advice on environmental issues facing the Corps.

2) The Corps' Dam Safety Program $250K provides for dam safety professional workshop and conference by Corps team (district) members with participation and emphasis on technical competency. Supports representatives on national and international committees by providing written technical data.

3) The Civil Works Guidance Maintenance Program (GUMP) $2.0M develops and updates technical guidance, design and construction standards, and criteria documents critical to our Civil Works mission. The average age of these documents is 12 years. Funding pays for labor of Corps subject matter experts.

4) Capitol Hill assignments/Civil Works professional development $250K provides for detail assignments of Corps members to the House and/or Senate, or both sub-committees responsible for the oversight of the authorization and appropriation process of the Civil Works program. Detailees participate in the development of policy legislation, Water Resource Development Acts, and annual appropriations. The Developmental assignment is located in Civil Works.

5) Water Resources Development Act of 2007 $250K provides for the updating of the Principals and Guidelines which include associated procedures and complete implementation guidance for provisions as identified in WRDA 07 and as directed by congress.

6) Updating the Civil Works Strategic Plan $250K. Water Resources management is part of the Civil Works program and is one of the five corporate mission areas. The Corps will continue to use the strategic planning process for the development of the next Civil Works Strategic Plan for Fiscal Years 2010-2016to ensure that the plan's goals, objectives and strategies are designed to meet the program's future strategic direction. The Strategic Goals provide efficient and effective implementation of needed public engineering services for the Armed Forces and the Nation, while enhancing our flexibility and responsiveness to homeland and national security contingencies. Programs that support these goals, direct USACE and its subordinate elements in the planning, preparation, and execution of experiments and exercises. This in turn support preparation for Army, FEMA, national and international missions, and the integration of existing relevant capabilities.

7) Budget Formulation Execution Line of Business (BLELoB) $95K. BFELoB is a Federal Government wide initiative focused on building the "Budget of the Future". The Department of Education manages the BFELoB.

8) The Unified national program for floodplain management $20K, funds the USACE portion of a multi-Federal agency effort that supports the Association of State Floodplain Managers in the development and management of a certification program for floodplain managers. It also funds USACE participation in two (2) working meetings of the Certification Board of Regents, as well as specific activities identified by the Regents.

9) Management of the Planner's Improvement Course $100K, provides for the Corps to update lesson plans and course objectives in keeping the Planners Improvement course current while using the latest technology and community of practice.

10) Planning Community of Practice (PCoP) Support to Learning Organization/Knowledge Management $60K supports significant initiatives of the Planning CoP. This includes the Corps-wide planning community such as corporate model certification and planners tool box; project risk management and Actions for Change; professional development seminars and conferences; support for long-term training opportunities within HQ Planning and Policy Division and development of planner's resource website and lessons learned.

11) Support to States/Interagency National Water Resources Priorities $282K. This project all goals under the Civil Works Strategic Plan, which are both mandated under the Command Consolidated Guidance (CCG). This initiative began in 2006 with a preliminary framework allowing for the CW Directorate to assess where the states are, in regards to planning and management of their water resources, what their visions are for their water future, and how we best help them to implement integrated water resources management. This effort includes the research of water plans, analysis of results, contract for hotels to host regional conferences, interview with Federal agencies, preparation of a POC database, facilitation services at regional conferences, preparation of briefings for the leadership, briefing at national and selected conferences where water resources issues are discussed; development of trends reports, proceeding reports, presentations at the regional conferences, article for media coverage, etc...

12) Recreation One Stop $50K. The Recreation One-Stop initiative is to enhance customer satisfaction with recreational experiences on public lands. It improves access to recreation-related information generated by the Federal government, streamlines the systems used to manage that information, and increases the sharing of recreation-related information among government and non-government organizations.

13) Interagency Performance Evaluation Team/Hurricane Protection Decision Chronology (IPET/HPDC) Lessons Learned $1M. This is a National initiative to address critical lessons learned from Hurricane Katrina. This initiative (formerly known as Action for Change) will continue to be executed with national teams as part of the USACE Campaign Plan. Key elements include systems based approaches, risk-informed decision making and risk communication. It will include development of the Datum Engineer Manual. Will develop and deliver joint NOAA/USACE Vertical Control/Datum Certificate training program. Will develop an initial framework that would include factors influencing incremental changes which support a comprehensive evaluation capability, for incremental changes to USACE projects on a system and/or watershed basis. Perform an evaluation of Vertical Datums on all Corps projects. Develop Strategic Plan for Water Management Adaptation to Climate Change.

➢ Campaign Account Goal 3 investments total **$1.646M** for four (4) programs;

1) Innovative, Resilient, Sustainable Solutions to the Armed Forces and the Nation $25K/Critical Infrastructure Resilience $150K/Innovation $155K. These activities support the USACE Campaign plan. As each Objective is implemented, activities which started out in the Goal 3 campaign plan are rolled into the standard applicable Program's normal business process and no longer funded by these two ED&M Program Account. As an example, Goal 3 C, Asset management has had most of activities previously set as Goal 3 sub Objectives already rolled into CW standard business process, and is not requesting funds to do these activities.

2) National Reality Specialist Certification $67K. This initiative is critical and essential to ensure the development and retention of a world-class workforce. A National Certification Program has been tentatively approved by OSD. This program also ties in requirements for Defense Acquisition Workforce Improvement Act (DAWIA). Additionally, training will ensure we retain subject matter expertise, sustain technical excellence, encourage participation in professional organizations, and pursue continual learning opportunities. This will lead to career development for all team members. All training will link to Mission Essential Task List and delegation process.

3) Real Estate Business Process Metrics $235K. A National Certification Program has been tentatively approved by OSD. This program also ties in requirements for DAWIA. Additionally, training will ensure we retain subject matter expertise, sustain technical excellence, encourage participation in professional organizations, and pursue continual learning opportunities. This will lead to career development for all team members. All training will link to Mission Essential Task List and delegation process.

4) Asset Management $1.0M Contract support for Asset Management ($1.0M) will allow the Corps to continue to implement the asset management program that will merge the agency's vision for performance and efficiency along its business line missions with a proactive lifecycle investment strategy. The funds will be utilized to reconcile and close all data gaps and performance measures and provide continual data validation of the asset inventory; support the condition assessment methodology; development and implementation across portfolio of infrastructure assets; metric development, identify best management practices and benchmarks to develop a risk-based process for prioritizing maintenance and capital improvement investments, and continue to meet OMB requirements by monitoring progress and updating the quarterly scorecard.

➢ Campaign Account Goal 4 investments total **$5.295.5M** for seventeen (17) programs;

1) Competitive professional development (LTT) $400K supports tuition, travel and per diem for twelve (12) civil works funded employees to obtain academic degree training across the command. Without this centralized funding for civil works funded employees, there will be an inequity in training opportunities between civil and military funded employees.

2) Corps Map (enterprise GIS (eGIS)) and Corps project notebook database (CPN) $250K supports national viewing and database component for many AIS systems as part of the USACE enterprise geospatial metadata repository as required by EO 12906.

3) Organizational memberships $200K provides funding for USACE participating in the activities of professional and government organizations. This supports long-standing relationships and partnering efforts of USACE. This program to is designed to corporately learn from others and contribute to the improvement of the Engineering/Construction/Operations (ECO) industry of the nation. Participation in these organizations allows interaction with public sector and private companies, enabling recruitment, technical transfer and knowledge sharing, development of relationships and trust, situational awareness, sharing research and best practices, educational and developmental opportunities and benchmarking.

4) Career Program 18 leadership development, $300K provides civilian professional development as part of the Army's Career Program 18, Engineers & Scientist (Construction) This program expands the civilian professional's knowledge and abilities to prepare them for future advancement and leaders in the Army organization. The developmental assignments and coursework taken by mid-level career candidates, broaden their base of knowledge and expertise in different functional and geographic areas. Completion of the CP-18 LDP prepares the candidates for assuming positions of increasing responsibility with the Army engineering community

5) Chief of Engineers design and environmental and professional awards program $30K was developed to recognize design excellence in USACE work. It also provides funding to support the Federal Agency Interview Program booth at professional conventions.

6) Science and Engineering Technology (SET) $100K a USACE initiative to establish common Science and Engineering (S&E) practices and tools across Regional Business Centers that focuses on computer-based technologies, identification and coordination of computer platforms to support technical missions, and support of integration of Building Information Technology in USACE.

7) Competent, disciplined and resilient teams under the National Technical Competency Team (NTCT) $20K will continue the work of the NTCT to assess current technical status, identify future requirements, tools and methods for managing technical competencies, and conduct a pilot test of results in one or more region with the goal of deploying the program across USACE.

8) Project management business process (PMBP) assessment $226K. Over the past several years, Corps has invested in standardizing our business processes Corps-wide, which in effect will also centralize and consolidate our legacy Automated Information Systems (AIS) and the management of data from an enterprise perspective. The FY 2010 investment will allow the Corps to implement best practices/innovations, making use of knowledge management tools and improving the Corps' Corporate business process manual. Funds would be used for aligning our business processes to such initiatives such as the centralized Quality Management System (QMS), the Enterprise Data Warehouse (EDW), and refinements/clarifications/implementation guidance to the overarching Business Process Regulation, ER 5-11-1.

9) Geospatial Line of Business $100K. The Nation's interests are served, and the core missions of Federal agencies and their partners are (met) and supported, through the effective and efficient development, provision, and interoperability of geospatial data and services.

10) Technical Competency $50K. TEN is the Community of Practice (CoP) tool for the Engineering and Construction (E&C) community. E&C is the largest USACE Community of Practice (CoP), including about 1/3 of the USACE workforce. TEN provides specific functionality needed by the E&C CoP to manage expertise and share information across USACE & DoD. E&C requires support from ERDC-ITL & ACE-IT to maintain TEN functionality, and to transition functionality to corporate tools.

11) IM/IT services management and governance $2.5M provides civil funds to match military funding for USACE internal governance of e-government initiatives which includes information assurance, privacy, quality management, test and evaluation, architecture, infrastructure, records management, and portfolio management. Business cases for the major IT investments are located at http://www.usace.army.mil/CECI/Pages/OMB300.aspx .

12) Standard Procurement $10K. SPS is DoD's official mandated procurement and contract writing system. Within USACE, SPS is currently deployed throughout all level of the National Contracting Organization. ED&M Program Account will assist with special/unique technical or functional requirements to support or/and enhance the overall contract mission execution to both SPS and CEFMS/SPS interface, to include other functional requirements, that will provide specific results to improved efficiency or support NCO mission requirements, but limited functionality enhancements.

13) Warrant Management System $50K. NCO Warrant Management System (WAMAS) automates the contracting/grant warranting process by eliminating several manual steps and scatter files of each appointment. Therefore, the system provides a more efficient means for requesting, creating, transfer, reporting, and terminating warrants. WAMAS also serves as a data repository. Additionally, the WAMAS will have the capability to query specific data within the system and quickly respond to data calls concerning contracting and grant officers (PCO, ACO, OPM and Grant Officers). The WAMAS program will soon complete stag where it can practically convert over to Fee for Service while a few remaining tasks in the testing phase are completed.

14) Quality Management PM $50K. This is a mission critical requirement. Funding is split between contract support for IT (program support for QMS development) and purchases of standards. The QMS is a methodology and a platform to control processes across the Corps. It supports the CG direction and Campaign Plan 4C goal of developing a QMS and standardizing business practices. This will be a corporate tool to support all offices in capturing business practices. It supports the Corps in working virtually between offices and across regions. The documentation and ease of availability of these processes will expedite response time and efficiencies in deployments and emergencies in support of the Army and civil requirements. It supports the ability to capture knowledge and business practices of current workforce for future staff, establishing a platform to support and control LSS projects, and capturing best business practices. The ISO standard is a licensing agreement for use by all the Corps.

15) Corps Wide Efficiency Initiatives $773.5K. To conduct business process reengineering activities for achieving corps-wide efficiency initiatives, post competition accountability on completed competitions, cost tracking and performance evaluation and reporting to congress and OMB.

16) Unique identification (UID) for personal property $170K is a unique item identifier is mandated for all items if the unit acquisition cost is over $5,000, serially managed, mission essential, controlled inventory, or a consumable item or material where permanent identification is necessary. Assets that meet the UID criteria must be entered as an item in the UID beginning in FY 2007 and complete physical marking NLT 31 Dec 2012 for legacy inventory.

17) Facilitate Services $66K. Funding is to support Senior Leaders offsite for incoming Deputy Commanding General for Civil and Emergency Operations, and subsequent quarterly Senior Leader meetings on the state of the Civil Works Program.

The FY 2011 Headquarters staffing level is 385 civilian FTE. HQs reimburses Department of Army for 34 expense funded uniformed military spaces. The Headquarters breakout of operational costs by major category is shown below.

$	62,724	Civilian Personnel Compensation and Benefits
	13,465	Fixed Costs
	(7,438)	(Rent, utilities, AIS, communication, critical support services, etc.)
	(6,027)	(Reimbursement to Department of Army for Uniform Military salaries)
	5,201	Variable Costs (Transportation, printing, travel, training, supplies and equipment)
	12,400	Program Account
$	93,790	

	FY 2011 Request
b. Major Subordinate Commands	$ 72,877

Eight of the nine division offices (Major Subordinate Commands) provide quality assurance for and supervise work of the 38 district offices that have civil works responsibilities. The MSCs have the following primary roles:

- Command and Control – executive direction and management (including resource management) of subordinate districts;
- Program Management – management, integration, development, execution oversight and analysis of division-wide programs;
- Regional Interface – coordination of issues which cross district boundaries and/or involve regional interests, higher headquarters, state agencies, and regional or higher headquarters of Federal agencies/foreign governments;
- Quality Assurance – oversight to ensure process and procedures are in place to produce safe, timely, reliable, and cost-effective products and services.

A division headquarters office manages itself and all of its subordinate districts as a single business center, balancing the types of quantities of workload against resources throughout the division's area of responsibility. Design of organizational structure is delegated to division commanders. The intent is to give subordinate commanders the flexibility necessary to meet customer needs, obtain efficiencies, adjust to resource constraints, and optimize good business practices. MSCs are responsible for program coordination among district offices to ensure efficient and effective program execution, establishment and oversight of technical centers of expertise, and workload and workforce planning. The Major Subordinate Commands are responsible for a strong navigation mission, as well as preservation, restoration, and enhancement of environmental resources, including but not limited to measures for fish and wildlife, increased water supplies, recreation, cultural resources, and other related water resources development programs.. The FY 2011 civilian FTE staffing level for MSCs is 405. HQs reimburses the Department of Army for 18 civil uniformed military positions. The civilian FTE level for each MSC varies based upon the scope of their Civil Works responsibilities. The MSCs may have between 49 to 63 FTEs, except for Pacific Ocean Division, which has 17 FTE due to its predominate military workload,

$	59,822	Civilian Personnel Compensation and Benefits
	12,963	Fixed Costs
	(9,571)	Rent, utilities, training, travel, communication, critical support services, etc.)
	(3.392)	(Reimbursement to Department of Army for Uniform Military salaries)
	92	Variable Costs (Transportation, printing, training, travel, supplies and equipment, and admin support from districts)
$	72,877	

	FY 2011 Request
2. Administrative Expenses for Field Operating Activities	$18,333

Expenses appropriation also funds the management and operation costs allocable to the civil works program of Corps-wide support facilities including: Humphreys Engineer Center Support Activity (HECSA) – this field operating activity of the Corps provided day-to-day operational support services to the Corps; Institute for Water Resources (IWR) – This institute performs studies and analyses on a wide range of water resource issues and develops project planning techniques; Engineering Research and Development Center (ERDC) – This center operates sevel labs and conducts research and development for the Corps and other agencies; U.S. Army Corps of Engineers Finance Center (UFC) – This center supports all Corps finance and accounting activities; US Army Corps of Engineers Logistics Activity (ULA) provides logistics planning and operations support, supply and maintenance services, facilities maintenance services, transportation services, and regional logistics liaisons to USACE commands and activities in order to provide supply and service support across the full spectrum of operations. The Expense appropriation funds 30 FTE to oversee these operations; Corps of Engineers – Information Technology (ACE-IT), ACE-IT (Army Corps of Engineers - Information Technology) was selected as the IM/IT service provider for the U.S. Army Corps of Engineers as part of the USACE A-76 competitive sourcing initiative. The ACE-IT team is comprised of USACE Government staff, providing mission-assured services, along with Lockheed Martin staff. ACE-IT is the provider of Information Management/Information Technology (IM/IT) support for USACE. The ACE-IT mission is to provide enterprise-wide IM/IT services for all information management functional areas to include Automation, Communication, Information Assurance, Records Management, Printing & Publications, and Visual Information. These services include local support activities, as well as enterprise services such as centralized AIS hosting, long-haul communications, e-mail support, service desk, and information assurance services. The Expense appropriation funds 15 FTE to oversee the services provided by ACE-IT. The FOAs have a total of 120 civilian (no uniformed military positions) FTE in FY 2011.

APPROPRIATION TITLE: Expenses

$ 15,774	Civilian Personnel Compensation and Benefits
2,214	Fixed Costs (Rent, utilities, communication, critical support services, etc)
345	Variable Costs (Transportation, printing, supplies and equipment, training, travel, and contract support)
$ 18,333	

Account Summary:

	HQ	MSC	FOA	TOTAL
Civilian Personnel Compensation and Benefits	$ 62,724	59,822	15,774	$138,320
Fixed Costs	$ 13,465	12,963	2,214	$ 28,642
(Rent, utilities, communication, critical support services, etc.	($ 7,438	9,571	778	$ 17,787)
(Reimbursement to Department of Army for Uniform Military salaries	($ 6,027	3,392	0	$ 9,419)
Variable Costs (Transportation, travel and training, supplies, district services, etc	$ 5,201	92	345	$ 5,638
Civil Works Program Account	$ 12,400			$ 12,400
TOTAL	$ 93,790	72,877	18,333	$185,000

Office of the Assistant Secretary of the Army (Civil Works)

Justification of Estimates for Civil Functions Activities

Department of the Army, Corps of Engineers
Fiscal Year 2011
($000)

APPROPRIATION TITLE: Office of the Assistant Secretary of the Army (Civil Works)

	FY 2010 Enacted	FY 2011 Request	Change FY 2010-2011
Policy Direction and Oversight	$ 5,000	$ 6,000	$ 1,000

JUSTIFICATION:

The Office of the Assistant Secretary of Army for Civil Works OASA (CW), in accordance with 10 USC 3016(b) (3), the ASA (CW) has the principal responsibility for overall policy direction and supervision of DA functions relating to all aspects of the Civil Works Program, including all reimbursable work performed by the U.S. Army Corps of Engineers (USACE) on behalf of Federal and non-Federal entities.

Specific responsibilities of the ASA (CW), assigned by statute and/or Army General Orders, include the following:

A. Managing and supervising the DA Civil Works Program, including:

1. Developing, defending, and directing the execution of DA Civil Works policy, legislative activities, and financial programs and budget.

2. Developing policy and guidance for, and administering the DA regulatory program to protect, restore, and maintain the waters of the United States in the interest of the environment, navigation, and national defense, pursuant to the Rivers and Harbors Appropriations Act of 1899, the Federal Water Pollution Control Act (Clean Water Act), as amended, and the Marine Protection Research and Sanctuaries Act of 1972.

3. Developing the DA position on USACE civil works studies and projects, including coordination with OMB under E.O. 12322, and transmission of the Secretary's recommendations to Congress.

4. Serving as congressional liaison on civil works matters, including serving as the DA point of contact for House and Senate Authorization and Appropriations Committees charged with oversight of the DA Civil Works Program.

B. Overseeing the development, coordination, and implementation of policy for USACE programs in support of other Federal and non-Federal entities, except those activities that are exclusively in support of U.S. military forces.

C. Formulating and overseeing the program and budget of the Arlington National Cemetery and the Soldiers' and Airmen's Home National Cemetery, including proposals for placement of monuments and the administration, operation and maintenance of the cemeteries, except for interment/inurnment policy.

D. The OASA-CW also, in coordination with the Army's Deputy Chief of Staff, G-3, develops policy for and directing the foreign activities of the USACE, except for those foreign activities that are exclusively in support of U.S. military forces overseas.

DESCRIPTION:

The budgeted amount will be used to finance costs sub-allocated to the OASA (CW) by the Department of the Army, including the costs of 25 FTE and indirect and overhead costs consistent with those funded in recent appropriations.

SUMMARIZED FINANCIAL DATA:

	FY 2011
Personnel Compensation and Benefits (fully fund authorized staff to accomplish mission)	3,100,000
Support Services (Space, utilities, communications, ADP, etc)	1,900,000
Other (Travel, transportation, training, printing, supplies and equipment)	1,000,000
Total FY 2011 amount:	$ 6,000,000

REVOLVING FUND

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

1. Explanation of Revolving Fund. The Revolving Fund, established by Congress in 1953 (P.L. 83-153, 67 Stat. 199), replaced the Plant Allotment Account authorized by the Secretary of War, on 13 December 1934, which had in turn replaced the Plant Program - Appropriation Basis that was used prior to 1934. Prior to the establishment of the Revolving Fund, accounting procedures necessitated by the two previous systems were cumbersome and resulted in a distorted picture of costs when plant was transferred from one appropriation to another.

a. Essentially, P.L. 83-153 provided that the Revolving Fund assumed the total capital value of $127.9 million in 1953, consisting of the unexpended cash balance ($25.3 million) and the net value ($102.6 million) of the assets and liabilities of the plant accounts. The Revolving Fund would finance all future services as a separate entity within its own resources. The Plant Replacement and Improvement Program of the Revolving Fund (PRIP), has proven to be an effective means of providing equipment and materials needed on more than one project. Some advantages of the system are that it: (1) Simplifies funding and accounting procedures; (2) Provides consideration for plant replacement costs and inflation; (3) Eliminates distorted project costs when plant is used on multiple projects throughout its economic life; and (4) Permits plant availability on a timely basis to meet requirements.

b. The Revolving Fund operates within its own resources rather than from recurring annual appropriations. The Fund owns land, structures, dredges, floating plant, aircraft, fixed and mobile land plant, tools, office furniture, special equipment, computers and automated systems, which serve two or more projects or appropriation accounts. In order for the Revolving Fund to acquire and replace assets, plant or equipment items, it is necessary that the user, project, or appropriation be charged a fee when equipment or services are consumed. This fee consists of operating and fixed costs. The operating costs are reimbursed without a surcharge. The fixed costs include straight-line depreciation and a PRIP surcharge to provide for price growth and inflation. When planned expenditures exceed the income producing capability of the Fund, additional direct appropriations are required.

c. When the Revolving Fund was established, Congress authorized a capital fund limitation or ceiling of $140.0 million. The capital fund value or corpus consists of the total assets, less liabilities and reserves. The initial corpus ceiling was adequate until 1965, when rising workload and inflation forced the Corps of Engineers to begin Budgeting annual increases of the corpus. These requests were generally granted, because the ceiling limited the income generating capability, which in turn, adversely affected the overall management of the Fund. Therefore, the Corps recommended and Congress granted the request in FY 1979, that annual capital-expenditure ceilings be substituted for the corpus ceiling. Then in FY 1985, expenditure ceilings were replaced by expenditure estimates. Starting in FY 1994, the Corps replaced the estimate of expenditures with an estimate of obligations in accordance with recommendations by the General Accounting Office.

2. The Revolving Fund accounts for facilities, payroll, and operations throughout the Army Corps of Engineers at its divisions, districts, separate field offices, and laboratories including its Engineer Research and Development Centers like the Waterways Experiment Station. The fund incurs expenses for acquisition, rehabilitation, operation, and maintenance of multiple use structures such as warehouses, shops and garages, as well as general-purpose plant, such as dredges, tugs, launches, trucks, cranes, bulldozers, drill rigs and other construction equipment. It also provides for reimbursement of the general and administrative expenses of District offices.

3. The FY 2011 PRIP includes 9 New Major Items and 66 Continuing Major Items from FY 2010. 4 Continuing Major Items have revised cost estimates greater than ten percent above those that were previously reported. The tables that follow provide cost estimates for the New Major Items and revised cost estimates for the Continuing Major Items with increases in excess of ten percent.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

FY 2011 New Major Items	Page	Total Estimated Cost ($000)
1. A&B Clock Tower and Annex Window Replacement, Rock Island District	7	1,438
2. Motor Vessel Russelburg Replacement, Louisville District	14	9,500
3. Survey Vessel Florida Replacement, MDC 2806, Jacksonville District	15	6,500
4. Pipe Barges, MDC 2628, St Paul District ?	15	700
5. Data Cabling Installation (CAT 6), Walla Walla District HQ	17	1,509
		Total: 19,647

New Major Items with FY 2010 Out-of-Cycle Requests	Page	Total Estimated Cost ($000)	FY10 Scheduled Amount ($000)
1. Huntington District Federal Building Upgrade	7	21,000	16,950
2. Clock Tower and Annex Fire Alarm Upgrade, Rock Island District	7	860	448
3. USACE Logistics Agency Relocation, Millington, TN	7	3,392	3,392
4. Crane Replacement for Willamette Valley Project, Portland District	14	900	900

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

Continuing Major Items with Revised Cost Estimates in Excess of 10%	Page	Previous Estimated Cost ($000)	Revised Estimated Cost ($000)	Total Cost Increase ($000)
1. Survey Boat Gillette, Wilmington District	14	$1,100	$2,100	$1,000
2. P2: Corps of Engineers Programs and Project Management System	15	$29,945	$34,270	$4,325
3. Real Estate Management Information System (REMIS) – Corpswide	15	$6,900	$10,400	$3,500
4. USACE Learning Network (ULN), Corpswide	17	$3,600	$6,475	$2,875

PRIP Category	Page
Land and Structures	4
Dredges	7
Other Floating and Mobile Land Plant	11
Fixed Land Plant and Automated Systems	15
Tools, Office Furniture and Equipment	17

4. FY 2010 and FY 2011 (Items costing $700,000 or more)

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

a. Land and Structures:

(1) Ship/Tow Simulator Building – Engineering Research and Development Center (Continuing). The Coastal and Hydraulics Laboratory (CHL) in Vicksburg, Mississippi, was formed in FY97 through the merger of two of the Army Engineer Research and Development Center (ERDC) laboratories, the Hydraulics Laboratory and the Coastal Engineering Research Center. Within the CHL mission of supporting the Corps water resources related needs of the Department of Defense, an ever increasing level of sophistication, integration, and comprehensiveness in technical tools and solutions is required. The CHL Navigation Branch operates the only Corps vessel simulator, which is the primary means to evaluate and optimize proposed changes to Federal navigation channels. With the ability to function as a ship, towboat, or small craft, it can be used for deep and shallow draft projects and small boat harbors. The simulator operates in real time and is used by actual mariners to help finalize Corps channel designs. This building is required to house the new ship/tow simulators which are scheduled to be built at the lab. The project is currently on hold pending special Congressional authorization. Total estimated cost: $2,500,000. FY 2010: $2,500,000. This project requires special authorization before any funds can be expended.

(2) Ship/Tow Simulator System – Engineering Research and Development Center (Continuing). The Coastal and Hydraulics Laboratory (CHL) in Vicksburg, Mississippi, was formed in FY97 through the merger of two of the Army Engineer Research and Development Center (ERDC) laboratories, the Hydraulics Laboratory and the Coastal Engineering Research Center. Within the CHL mission of supporting the Corps water resources related needs of the Department of Defense, an ever increasing level of sophistication, integration, and comprehensiveness in technical tools and solutions is required. The CHL Navigation Branch operates the only Corps vessel simulator, which is the primary means to evaluate and optimize proposed changes to Federal navigation channels. With the ability to function as a ship, towboat, or small craft, it can be used for deep and shallow draft projects and small boat harbors. The simulator operates in real time and is used by actual mariners to help finalize Corps channel designs. Total estimated cost: $5,300,000. FY 2010: $5,050,000. FY 2011: $250,000. This project requires special authorization before any funds can be expended.

(3) New Gate and Access Road – Engineer Research and Development Center (Continuing). The purpose of this project is to provide direct, internal roadway access to the Information Technology Laboratory (ITL) site from the remainder of the Army Engineer Research and Development Center in Vicksburg, Mississippi. The ITL presently can only be accessed by using a public street system. Among the four laboratories at the site, the ITL is the only one separated from the others by a public road. With the increase in the security posture of the facility, some gates were closed permanently and guards were posted at the others. Travelers now have to exit the main facility and enter another gate just to move between the labs. A new gate and access road will allow secure access between all four facilities. Total estimated cost: $3,723,000. FY 2009: $3,723,000. Congressional authorization to use PRIP funds to construct a new Environmental Laboratory and provide improvements to the Information Technology Laboratory was provided in Section 107 of the Consolidated Appropriations Act, 2008 (Public Law 110-161).

(4) Additions and Betterment to Information Technology Lab – Engineer Research and Development Center (Continuing). Additions and betterments are needed to expand the Information Technology Lab (ITL) to accommodate a new Department of Defense purchased supercomputer. The Engineer Research and Development Center (ERDC) examined all of its requirements for computer acquisitions in the next five years in order to determine the new building requirements. Along with the building expansion, extensive increases in power and cooling requirements are included in the project. The design of the addition to the facility will also allow employees who currently work in adjoining trailers to move into the building. Total estimated cost: $29,500,000. Previous years: $27,500,000. FY 2010: $2,000,000. Congressional authorization to use PRIP funds to construct a new Environmental Laboratory and provide improvements to the Information Technology Laboratory was provided in Section 107 of the Consolidated Appropriations Act, 2008 (Public Law 110-161).

(5) Renovate Docks A and B – U.S. Moorings - Portland District (Continuing). Refurbishing Docks A and B would bring them up to modern load bearing standards. The U.S. Government moorings facility, Docks A and B has been in existence since 1903 to provide berthing during the winter repair period for minimum fleet hopper dredges ESSAYONS and YAQUINA. The last major refurbishment of the docks was in 1964. Since then, the dock surfaces have been re-decked and shear piles replaced periodically due to normal wear and tear. The stringers have rotted and several pile cap timbers have extensive dry rot up to four feet back from the exposed ends. Total estimated cost: $6,200,000. This project is currently on hold. No money has been committed or obligated in FY 2006 or FY 2007. An environmental cleanup is required at the site and a number of options are currently being considered. One of the options would require removal of the docks. As a result, refurbishment of the docks is on hold until a decision has been made.

(6) Environmental Laboratory Building – Waterways Experiment Station (Continuing). New building is required to enable consolidation of the staff in a central location to maximize efficient operations of the Environmental Laboratory. The Environmental Laboratory is currently dispersed throughout several buildings at four different locations within the Waterways Experiment Station. Management, administration, and coordination of research activities are difficult and inefficient under the present arrangement. Renovation of existing buildings was investigated, however, it was found that force protection measures which are now required made the addition and betterment option cost prohibitive when compared to new building construction. Total estimated cost: $18,257,000. Prior Years: $1,000,000. FY2009: $17,257,000 Congressional authorization to use PRIP funds to construct a new Environmental Laboratory and provide improvements to the Information Technology Laboratory was provided in Section 107 of the Consolidated Appropriations Act, 2008 (Public Law 110-161).

(7) Ouachita-Greeson-DeGray Project Management Office - Vicksburg District (Continuing). The need for the new Ouachita-Greeson-DeGray Project Management Office building has evolved around the three Arkansas Lake and power plant projects and their associated mission-essential operational facilities. Today, there are 155 Government employees and 74 contract employees working out of this office. The existing facility space being utilized is not adequate for current staff, essential employee training purposes or joint meeting requirements. Employees are required to attend joint meetings, training courses, and conference sessions several times annually. Personnel are left with no adequate facility available for these purposes based on the remote location of these projects. The building currently occupied by the Ouachita Project Management Office will be turned over to the contractor for their use; shop personnel will utilize the building currently occupied by the Lake Ouachita Field Office. All other shop and maintenance space will continue to be used as is. Ouachita Project Management Office and Lake Ouachita Field Office personnel will use the new facility as office space. The Ouachita Project Management Office and its subordinate Lake Field Offices and Power Plants will also use the facility for conferences, meetings, and classroom/training space. The new facility will conform to employee space utilization/requirements specified in AR 405-70, provide space for all employees to meet in a central location, fill ongoing need for classroom/training space, provide storage for supplies and equipment, and meet current technological requirements for communications and electrical systems that can be upgraded in the future. The cost increase is a result of rising construction costs brought on by higher energy/fuel costs, Hurricanes Katrina/Rita, and the mid-west floods. Total estimated cost: $7,247,794. Prior Years: $6,483,000. FY 2010: $546,794. FY 2011: $218,000 to complete construction.

(8) Port Arthur Boat Basin Bulkhead and Breakwater, Galveston District (Continuing). Replace the Port Arthur boat basin bulkhead and breakwater. The 51-year-old structure is used to provide docking and mooring facilities for the Port Arthur Residence Office floating plant whose primary mission is to maintain the Sabine-Neches Waterway. The bulkhead was constructed with salvage sheet piling, which has become corroded and has severe lamination over much of its surfaces. Holes in the sheet piling have allowed water intrusion and have caused sinkholes behind the bulkhead. In addition, the breakwater cannot prevent wave action from coming into the basin. Total estimated cost: $1,925,659. Prior Years: $1,880,659. FY 2010: $45,000 to complete construction.

(9) Energy Improvements District HQ, Alaska District (Continuing). The District Headquarters building complex consists of 86,000 square feet of office space. The building is made up of two main structures, the original 69,000 square foot wood frame structure and a newer 17,000 square foot Annex separated by an atrium. The original structure was constructed in 1946 while the Annex was occupied in 2000. The windows and siding on the original structure were replaced in 1977-78 while the interior was renovated in the mid-1980s. This project is to improve the overall energy efficiencies of the Headquarters office building complex by reducing energy losses, lessening heat gains due to solar energy, replacing outdated steam heating systems with more efficient heated glycol systems, modifying the building's ventilation systems, and connecting all of the energy systems with a centralized Building Energy Management System. All of the activities are part of an integrated approach to reduce energy consumption and improve the quality of life within the building while at the same time improving the life expectancy of the building structure. The bulk of the activities will be performed within the original office structure rather than within the newer Annex. Total estimated cost: $2,051,000. FY 2009: $1,916,000. FY 2010: $120,000. FY 2011: $15,000.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(10) New Engineer Research and Development Center (ERDC) Headquarters Building (Continuing). ERDC Headquarters, Command Staff Division, and assembly facilities are currently housed in five separate facilities that are aging and energy-inefficient. The current buildings do not comply with "Green standards" set by the Leadership in Energy and Environmental Design (LEED) Certification Program or anti-terrorism standards and some buildings contain asbestos. The proposed facility would replace several buildings and would provide office, meeting, training, reception, technical support, and quality of life space for ERDC headquarters and administrative personnel and tenant organizations in a modernized facility that complies with DoD minimum antiterrorism standards for buildings. The new facility would increase productivity, reduce operating costs, improve morale and synergy among the staff, enhance force protection, and promote efficiency and enhanced management control through co-location of functions and personnel currently located in a number of widely separated buildings on the 700-acre Vicksburg installation. Preliminary estimates are that approximately 120,000 square feet would be sufficient to replace the current approximately 169,000 square feet in five separate outmoded buildings. Note: Before this project is executed, it will require special Congressional authorization for the use of PRIP funds. Total estimated cost: $30,000,000. FY 2011: $18,800,000. Future Years: $11,200,000.

(11) Service Base Mooring Replacement, Pile Clusters, MDC 2768, St Louis District (Continuing). This project addresses safety, environmental conditions and mission requirements associated with the St. Louis District mooring facility due to the failure of four out of twelve wood pile clusters and the compromised southern mooring fleet area. The scope of work includes design and replacement of the piling system, removal of the existing pilings and replacing the trestle. The piling system supports the mooring facility at Mississippi River Mile 276. Currently, the southern wood pile clusters have failed and fleet barges are resting against a minimal number of remaining wood pile clusters. The replacement of the pile system will provide the St. Louis District fleet with mooring facilities designed to meet Coast Guard and marine safety criteria. Total estimated cost: $19,000,000. Prior year: $676,600. FY 2010: $12,014,000 for construction. FY 2011: $6,270,000. Future years: $39,400.

(12) Applied River Engineering Center (AREC), St. Louis District (New). The project involves designing and constructing a replacement facility for the current Applied River Engineering Center (AREC). The current facility is an old marine shop converted in 1999 into office, storage, and lab space. The work conducted at AREC covers all aspects of applied river engineering including navigation design, preparation of plans and specifications for construction, various studies, independent technical reviews, etc. In addition, the facility has evolved into a high visibility Corps interface with the public. Visitors come to the facility on a weekly basis ranging from international visitors, Federal and State agency staff, teachers and students. Staff and workload has been steadily increasing and has outgrown the current facility. As a result, AREC has been unable to keep up with the increased workload. Total estimated cost: $2,354,000. FY 2010: $250,000 for design. FY 2011: $2,104,000 for construction.

(13) Clock Tower Replace Cooling Tower and Air Conditioning, Rock Island Arsenal (Continuing). This project will replace the chiller, cooling tower and associated equipment with a new air-cooled condensing unit and associated equipment and controls. Approximate age of the current equipment is 25 years which is nearing the end of its useful life. Leaks and equipment failures are occurring more frequently and could result in total failure and displacement of employees. The air handling units provide cooling for approximately 50,000 square feet of office space for approximately 410 employees of the Rock Island District, located in the Rock Island Arsenal office building. The replacement of the equipment will also result in a change to more environmentally-friendly refrigerant. This was originally a minor item but cost increases required this project to be reclassified as a major item. Over the last year material costs and labor rates have increased due to extreme economic conditions. Recent site security measures have added a fence which impacted the design and recent planned office space expansion has increased the cooling load demand and caused the selection of a larger chiller plant capacity. Total estimated cost: $761,000. Prior year: $385,000 FY 2009: $376,000

(14) District Headquarters Building, Wilmington District (Continuing). The project involves preparing a GSA leased facility to house the Wilmington District staff and records. The current GSA lease has expired and, along with the fact that the current facility will not meet Uniform Facilities Code (UFC), the District must relocate. A two year lease extension was negotiated in 2008 to allow for time to prepare a new office. The new space must be constructed with private offices (53), conference rooms (5), cubicles (180), and equipped with standardized work stations and chairs, conference room and office furniture, and computer cabling and equipment. The new facility will meet the new UFC guidelines for leased facilities and provide for "green" space utilization. Total estimated cost: $6,500,000. FY 2009: $1,878,000. FY 2010: $3,412,000. Future Years: $1,210,000

(15) Emergency Navigation Lock Closure Caisson, Nashville District (Continuing). The project involves fabricating a navigation lock emergency closure caisson to replace the existing 80-year old Poiree Dam closure structure that is failing and unsafe. The replacement caisson would be available to dewater all nine locks in the Nashville District in order to conduct maintenance activities and for emergency closures. The nine locks are parts of three separate projects, the Tennessee River (seven locks), Barkley Dam and Lake (one lock) and Cheatham Lock and Dam (one lock). Total estimated cost: $3,300,000. FY 2009: $3,300,000.

(16) Huntington District Federal Building Upgrade, Huntington District (New). The Huntington District Federal Building is currently scheduled to undergo GSA ARRA funded renovations starting in FY 2010. During these renovations, Huntington District will make improvements to the building in order to meet Department of Defense minimum antiterrorism standards for buildings, and improve work environments to accommodate the recent increase in staffing. The work will consist of tenant improvements such as replacement of interior walls, ceiling, floor finishes, and carpet. More efficient floor layouts will be constructed as well. Security upgrades will include reinforcement of walls and windows, and structural retrofit for progressive collapse. Total estimated cost: $21,000,000. FY 2010: $16,950,000. FY 2011: $4,050,000.

(17) USACE Logistics Agency (ULA) Relocation, Millington, TN (New). Currently the ULA is co-located with the USACE Finance Center (UFC) in an existing building at the Naval Support Activity in Millington, TN. As part of a consolidation/cost-saving effort, the UFC is relocating the Corps of Engineers Financial Management System (CEFMS) Project Office from leased space in Huntsville, AL, to government space at Millington, TN. UFC needs the space currently occupied by ULA by October 2010 to accommodate the incoming personnel from Huntsville. ULA has requested excess government space from Navy Public Works at the Naval Support Activity in Millington, TN. The funds will be used to refurbish the excess Navy building to accommodate the ULA Personnel and purchase office furniture and equipment. Total estimated cost: $3,392,000. FY 2010: $3,392,000.

(18) A&B Clock Tower & Annex Window Replacement, Rock Island Arsenal (New). The project involves replacing existing windows with new energy efficient windows and installing blast resistant glazing in order to be compliant with DoD Minimum Antiterrorism Standards for Buildings. Total estimated cost: $1,438,000. FY 2011: $732,000. FY 2012: $706,000.

(19) Clock Tower & Annex Fire Alarm Upgrade, Rock Island Arsenal (New): The project was originally a minor item but a cost increase caused it to become a major item. The project involves upgrading the current fire alarm system. The existing fire alarm panels are overloaded and obsolete and replacement parts can no longer be obtained. Existing smoke detector zones for the fire alarm panels are also overloaded. Additionally, the fire department that services the Clock Tower is in the process of replacing the existing radio monitoring system which will cause the fire station to be unable to monitor the fire alarm panels. A new mass notification system will be installed to be compliant with the latest Unified Code Facilities (UFC) recommendations. Total estimated cost: $860,000. Prior Years: $412,000. FY 2010: $448,000.

b. Dredges:

(1) Dredge YAQUINA Repowering – MDC Project 2507 Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The main engines and ancillary systems have been in continuous service for twenty nine years. The main engines are no longer manufactured and it is becoming increasingly difficult to locate and procure replacement parts. Replacement of the main engines and ancillary systems is required in order to assure continued operation of the vessel. In addition, due to the ever increasing stringent emission standards, the engines should be replaced with more efficient marine diesels. Total estimated cost: $18,211,000. Prior Years: $9,418,400. FY 2010: $5,510,000. FY 2011: $3,266,000. Future years: $16,600.

(2) Dredge YAQUINA Ship Service Generator Replacement MDC Project 2726 – Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The ship service generator engines and ancillary systems have been in continuous service for twenty eight years. The engines are no longer manufactured and it is becoming increasingly difficult to locate and procure replacement parts. Replacement of the generator engines and ancillary systems is required in order to assure continued operation of the vessel. In addition, due to the ever increasing stringent emission standards, the engines should be replaced with more efficient marine diesels. Total estimated cost: $3,032,000. Prior Years: $1,266,200. FY 2010: $760,000. FY 2011: 805,800. Future years: $200,000.

(3) Dredge YAQUINA Dredging System Improvement MDC Project 2727 – Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The dredge pump engines, reduction gears, dredge pumps, hopper distribution system, and ancillary systems have been in continuous service for twenty eight years. The dredge pump engines are no longer manufactured and have been rebuilt several times. It is becoming increasingly difficult to locate and procure replacement parts. Replacement of the dredge pump engines and ancillary systems is required in order to assure continued operation of the vessel. The hopper distribution system is dated and will require redesign in order to maximize the settling and loading times from the new engine and more efficient dredge pump combinations. In addition, due to the ever increasing stringent emission standards, the engines should be replaced with more efficient marine diesels. Total estimated cost: $9,176,000. Prior Years: $3,599,400. FY 2010: $550,000. FY 2011: $2,826,600. Future Years: $2,200,000.

(4) Dredge YAQUINA Drag Arm Winches Replacement MDC Project 2676 – Portland District (Continuing). The dredge YAQUINA entered service in 1981. It is based in Portland, Oregon, and is part of the Corps hopper dredge fleet. The dredge operates on the West Coast to maintain Federal navigation channels. The winches, winch motors, drives, controls, and ancillary systems have been in continuous service for twenty eight years. These pieces of equipment are no longer manufactured and it is becoming increasingly difficult to locate and procure replacement parts. Replacement of the winches and associated systems is required in order to assure continued operation of the vessel. Total estimated cost: $1,828,000. Prior Years: $1,756,300. FY 2010: $58,000. Future: $13,700.

(5) Dredge POTTER Flexible Discharge – MDC Project 2717 St. Louis District (Continuing). This project entails the purchase of a flexible discharge floating pipeline, a spill and store barge, and handling gear for the Dredge POTTER. The new floating pipeline will provide the ability to better perform environmental dredging on the Mississippi River. Environmental dredging requires the use of fixed point discharge equipment in order to place dredged materials in specific locations to build beaches, islands, and underwater islands. Total estimated cost: $8,000,000. Prior Years: $5,953,000. FY 2010: $28,000. FY 2011: $2,019,000.

(6) Dredge McFARLAND Asbestos/Lead Abatement MDC 2603 – Philadelphia District (Continuing). Abate asbestos and red lead paint to achieve current occupational safety standards in active crew spaces: forward and aft crew quarters (pilothouse, galley, etc.); aft engine and machinery rooms; and the forward dredge pump rooms. The dredge McFarland was built in 1967 when both asbestos and red lead paint were in wide use. Asbestos is present throughout the McFarland in the fireproof crew space joinery (sheathing, ceiling, and paneling); pipe insulation; and structural fireproof insulation on steel bulkheads. Red lead paint was used throughout the ship as the corrosion resistant base primer coat on all interior hull and steel. The aged vessel has asbestos fragments lodged in inaccessible areas behind the joinery panels. The vessel and its crew of 60 have two missions: (1) emergency and national defense dredging worldwide and (2) planned dredging in commercial waterways, mainly Federal navigation projects along the Atlantic and Gulf Coasts. Total estimated cost: $6,000,000. Prior Years: $2,846,400. FY 2010: $1,140,000. Future Years: $2,013,600.

(7) Dredge POTTER Texas Deck Rehab MDC2738 – St. Louis District (Continuing). This project entails the refurbishment of the forward quarters and pilot house for the Dredge POTTER. The dredge is a 2,400 horsepower dustpan dredge which maintains 300 miles of the Mississippi River. The project will provide for more usable and habitable crew space and remove all lead based paint and asbestos. The pilot house has become crowded with all of the new electrical and electronic equipment, controls, and navigation aids that are required for modern day dredging and navigation. The present pilot house is a 1932 vintage design and is very narrow. The captain and crew must go outside during operations in all kinds of weather in order to avoid hitting obstructions. The Texas Deck also was designed in 1932 and it is where the offices are located on the dredge. The Second Deck is where the messing area and bunkrooms are located. The contaminants need to be removed from this area for the health and safety of the crew. Total estimated cost: $8,500,000. Prior Years: $4,781,000. FY 2010: $450,000. Future Years: $3,269,000.

(8) Dredge ESSAYONS Hopper Distribution System (MDC 2615) – Portland District (Continuing). The Dredge ESSAYONS is scheduled to have improved excavator style drag heads installed as a separate project with installation scheduled for FY2010. It is therefore imperative that the existing hopper distribution system be redesigned in order to maximize the retention of the increased amount of material that will be placed in the hoppers due to the more efficient drag heads. Installation of the new distribution system will result in increased retention and reduced loading time. A further benefit will be the reduction in annual maintenance costs for the new system by virtue of the use of highly abrasion resistant materials now coming into use in the dredging industry. Current cost estimate is a preliminary estimate. It is expected that a more accurate estimate will be possible as the design progresses. Adjustments if any will be made during the next yearly budget cycle. Total estimated cost: $960,000. Prior Years: $573,000. FY2010: $260,000. FY 2011: $100,000. Future Years: $27,000.

(9) Dredge ESSAYONS Drag head Improvements and Jetting System Modification MDC Project 2542 – Portland District (Continuing). The proposed excavator type drag heads produce much greater specific gravities over the California type currently in use. This equates to an increase in the total solids transported which will boost the production of the dredge ESSAYONS. Excavator drag heads have been on the market for several years and are a proven technology. The new drag heads will be put into service in FY2010, at which time the dredge will have twenty four years of remaining life. Modifications to the jetting system will also be required in order to take full advantage of the new style drag heads as well as improve hopper jetting and reduce dumping times. Current cost estimate is a preliminary estimate. It is expected that a more accurate estimate will be possible as the design progresses. Adjustments if any will be made during the next yearly budget cycle. Total estimated cost: $2,315,000. Prior years: $490,300. FY2010: $1,804,000. FY 2011: $20,700.

(10) Dredge WHEELER Repowering and Integrated Control and Monitoring System, MDC Project 2620 – New Orleans District (Continuing). Repowering by installing four replacement diesel engines is considered an addition and betterment to the WHEELER, due to the anticipated increase in fuel efficiency and the lowering of exhaust emissions for the vessel. A horsepower increase for propulsion is feasible. The engines currently in service are aged and recurring component wear and failure problems with these engines, combined with the manufacturer inability to provide replacement spare parts in a timely manner have warranted their replacement. If the WHEELER is not repowered, the engines currently in service are likely to suffer catastrophic damages as they have in the past. The high maintenance and high fuel consumption for the engines will continue. If one of the engines should become unserviceable, the vessel would likely be out of service for a period of three years in order to affect such major repairs. The vessel is primarily to support the navigation mission by dredging on the Mississippi River, Southwest Pass, and other Federal waterways. The ICMS is to be added in FY2009. The current system is obsolete and many of the electronic components are unsupportable with regard to repair or direct replacement. The benefits of repowering the WHEELER would be significantly reduced if the current ICMS is not replaced due to the decreased reliability of the vessel. Total estimated cost: $54,200,000. Prior Years: $22,797,800. FY 2010: $450,000. FY 2011: $2,000,000. Future Years: $28,952,200.

(11) Dredge FRY Shallow Draft Dredge Replacement (MDC2609) - Wilmington District (Continuing). Purchase a new shallow-draft hopper dredge in order to maintain shallow coastal inlets along the Atlantic coast while adhering to environmental restrictions on side cast dredges. The dredge FRY was built in 1944 as a U.S. Navy seaplane wrecking derrick and converted to a side-casting dredge in 1972 when acquired by the Corps. Theoretically, the FRY has a remaining useful life of 9 years but in reality, it is virtually worn out and does not meet current environmental standards. Regulatory agencies have restricted its use due to the disturbance created by the discharge of dredged materials. In 2002, the dredge crane failed resulting in emergency maintenance and more downtime. Alternatively, a crane replacement and a propulsion system upgrade would require lengthy shipyard work. It has been determined by the Marine Design Center that it would be more economical to replace the vessel FRY with a new shallow draft hopper dredge than to continue repairs/upgrades. In addition, a new dredge would be compliant with new environmental restrictions on side cast dredging. Total estimated cost: $20,000,000. Prior Years: $939,100. FY 2009: $12,650,000. FY 2010: $1,110,000. Future Years: $5,300,900.

(12) Dredge ESSAYONS – Replacement of Engine Room Instrumentation, Control, and Monitoring System (MDC 2651) - Portland District (Continuing). Replace the engine monitoring and control system during the current overhaul effort in order to properly monitor the new power plant being installed. The existing control and monitoring system on the dredge ESSAYONS is becoming unsupportable due to non-availability of spare parts. Without the system in operating order, the dredge ESSAYONS will not be able to carry out its mission. Total estimated cost: $2,578,700. Prior Years: $2,538,100. FY2010: $22,300. Future Years: $18,300.

(13) Dredge ESSAYONS Bow Discharge System Replacement MDC 2576 – Portland District (Continuing). Replace the Bow Discharge System on the dredge ESSAYONS to improve the mission capability, expand its usefulness, allow for safer operations and more efficiently support the full range of current and future dredging projects. The original side-mounted pump-ashore connections on the dredge ESSAYONS are no longer the industry standard to conduct pump-ashore projects. The existing connection system is not suitable for safe operations in areas exposed to wave action, such as Benson Beach at the mouth of the Columbia River, or beach replenishment projects of southern California. Modern hopper dredges use over the bow pump-ashore connections that are safer and more efficient for working in all conditions. There are pump-ashore projects being developed in Portland, Seattle, San Francisco and Los Angeles, which will require the dredge ESSAYONS. Benefit/Cost ratio is 25.5 to 1. Total estimated cost: $795,000. Prior Years: $55,400. FY 2010: $10,000 FY 2011: 10,000 to complete design. Future Years: $719,600 for construction.

(14) Dredge ESSAYONS Repowering MDC 2548 - Portland District (Continuing). Install new, more efficient, low emission diesel engines to save fuel, reduce the crew size and lower permitting (air resources board) cost. The original engines have been in service for 20 years, rebuilt numerous times, and are near the end of their economic lives. The engines do not lend themselves to effectively decrease exhaust emissions and to comply with emission standards. The engines will fail and the dredge would be removed from service without the repowering. The dredge ESSAYONS is one of four seagoing hopper dredges that comprise the minimum fleet, authorized by Public Law 95-269 and a U.S. Coast Guard certified vessel capable of going anywhere in the world. During the dredging season, the vessel operates 24 hours per day, seven days per week. Its primary mission is dredging harbors and coastal regions along the West Coast of the United States, Alaska, and Hawaii. It would take approximately three years to repower the existing engines at a loss of revenue equal to $46.9 million as compared to new engines at a cost of $37 million. Total estimated cost: $37,100,100. Prior Years: $37,000,100. FY 2010: $50,000. FY 2011: $50,000 to complete construction.

(15) Dredge Ladder Extension for the HURLEY, MDC 2450 - Memphis District (Continuing). Make modifications to increase the dredging depth of the HURLEY from 40' to 75'. This involves lengthening the existing dredge ladder, extending the hull to accommodate the longer ladder, and modifying the ladder hoisting mechanism. As presently equipped, the HURLEY can effectively be utilized only to dredge the shallow draft channel of the Mississippi River. The ladder extension will allow the HURLEY to be used to maintain the deep draft channel from Baton Rouge to New Orleans, extending its useful dredging season to about 250 days per year. Additional ladder hoisting and forward hull propulsion and maneuverability requirements associated with the longer hull form are included. Modifications will be accomplished during the lay up period, which normally runs from December to June. This project has been on hold for several years in order to allow for a review of the approach to the dredging mission including the need to coordinate with private industry. Total estimated cost: $17,800,000. Prior Years: $5,447,500. FY 2010: $7,400,000. Future years: $4,952,500 to complete construction.

(16) Procurement of POTTER Dredge Pump, MDC 2769, St. Louis District (Continuing). _This project comprises the design, manufacture, delivery, and installation of a new dredge pump to improve the performance, dredging efficiency, and maintenance costs of the Dustpan Dredge POTTER. The purpose of the new dredge pump will be to: a. Minimize maintenance required on the dredge pump. b. Increase dredging efficiency by reducing fuel consumption and increasing suction performance (NPSH). c. Permit longer discharge pipelines. The existing dredge pump consists of a 1932 casing design with a 1999 impeller and suction liner design. The casing is in three pieces, which inherently causes issues with the mating surfaces/flanges after hard facing or repair. The three-piece casing also allowed the pump to be disassembled into smaller pieces of less weight, requiring lighter capacity lifting gear in the pump room. The modern pumps are all designed with single-piece hard white-iron castings, and require much less labor to maintain or handle during routine maintenance. The alternatives considered in this analysis are as follows: 1. Continue operating and maintaining the Dredge Potter with the existing 1932 three-piece casing design pump system. 2. Replace with a modern and efficient dredge pump system designed with single-piece hard white iron casting, with minimized maintenance requirement, lower fuel consumption and more reliable operation for longer discharge pipelines. Total estimated cost: $4,100,000. Prior Years: $1,708,000. FY 2010: $500,000. FY 2011: $1,892,000.

(17) Dredge POTTER Control System, 2767, St. Louis District (Continuing). The purpose of the project is to replace the current control system which is becoming unreliable and is obsolete. Not replacing the current system risks down time due to lack of support for the outdated system. The current system has outdated computer equipment and software. The current owner of the rights to the software is Sperry, Inc. and Sperry has not responded to numerous requests for support. Therefore, converting this control system to a supportable platform and software is critical to maintaining long term reliability. Total estimated cost: $2,300,000. Prior Years: $50,000. FY 2010: $1,400,000. FY 2011: $850,000.

(18) Procurement of JADWIN Dredge Pump, MDC 2820, Vicksburg District (Continuing). The current dredge pump consists of a 1932 design which is obsolete. A new dredge pump system will minimize maintenance required, increase dredging efficiency by reducing fuel consumption and increasing performance, and permit longer discharge pipelines. Total estimated cost: $4,100,000. Prior Years: $100,000. FY 2010: $3,400,000. FY 2011: $600,000.

(19) Dredge McFARLAND Ready Reserve, MDC 2802, Philadelphia District, (Continuing). The Hopper Dredge McFARLAND is one of four Corps seagoing hopper dredges, which comprise the minimum fleet, authorized by PL 95-269. Section 2047(a) of the Water Resources Development Act of 2007 (Public Law 110-114) directed the Secretary of the Army to place the McFARLAND in ready reserve status not earlier than October 1, 2009 and not later than December 31, 2009. The dredge requires a number of upgrades and renovations to its mechanical and electrical systems in order to be reliable and meet all regulatory requirements. Total estimated cost: $9,600,000. FY 2009: $3,300,000. FY2010: $5,500,000. FY 2011: $500,000. Future Years: $300,000.

c. Other Floating and Mobile Land Plant:

(1) Replacement of the Towboat STEPHENSON MDC Project 2729 – Kansas City District (Continuing). The aging towboat STEPHENSON needs to be replaced by a newer, larger, and more powerful towboat that can handle the larger barges that have been acquired in recent years. That would allow the operator to experience less difficulty in stopping a loaded barge. The continued use of the aged towboat is a serious safety concern, especially when working around bridges and rock pile dikes. The STEPHENSON was placed in service in 1971 and has not had an overhaul since that time. Even with a major overhaul the life of the boat would only be extended another fifteen years. Total estimated cost: $4,670,000. Prior Years: $4,342,700. FY 2010: $195,000. FY 2011: $132,300.

(2) Revetment Crane Barge MDC Project 2690 – Memphis District (Continuing). The existing barge is of a 1958 series and is leaking badly and beyond repair. The crane barge is a vital part of the revetment operation on the Mississippi River where articulated concrete mats are placed on the banks of the river during low water to prevent scour and erosion. This operation has been ongoing for about one hundred years. There are two cranes and one of the cranes is used for the land clearing operation prior to the placement of the mats. The other crane is used for placement of gravel. The existing 100-ton capacity crawler cranes will be placed on the barge after it has been constructed. The barge typically has a pilothouse for shelter and a storage hold. As well as providing a work platform, the barge is used to transport equipment and debris to and from the work sites. Total estimated cost: $10,000,000. Prior Years: $9,686,800. FY 2010: $240,000. FY 2011: $73,200.

(3) M/V BLACKBURN Replacement – Galveston District (Continuing). A new aluminum hydrographic survey boat is required to replace the existing boat which was placed into service in 1974. The existing boat originally supported land survey crews by ferrying them to locations only reachable by water. It was also used to enable government inspectors and project engineers to visit pipeline dredge operations. The boat was converted to a hydrographic survey boat in the 1980s with some modifications. The boat has exceeded its 30 year life and is in need of a complete overhaul to continue in service. An economic analysis has indicated that replacement is far superior to making the necessary repairs to the vessel. The customers of the Galveston District are some of the busiest ports and channels in the Nation, and the equipment is needed to carry out the considerable navigation mission. Total estimated cost: $835,700. Prior Years: $815,700. FY 2010: $20,000 to complete.

(4) Survey Boat RODOLF Replacement MDC 2440 – Portland District (Continuing). Replace the Survey Boat RODOLF because the vessel will not support the upcoming Columbia River deepening project. This surface effect ship (SES), placed in service in 1980, and has become less reliable. The engines are nearing the end of their economic useful life and will require replacement in the next several years. The rubberized components that make up the SES capability of the vessel are expensive and available solely from the original manufacturer. In fact, some of these specialized and proprietary components no longer are manufactured due to the low demand. The RODOLF performs surveys of the Columbia and lower Willamette Rivers up to the Bonneville Dam for the dredges ESSAYONS and YAQUINA, and commercially contracted dredges. Total estimated cost: $3, 300, 000. Prior Years: $2,497,000. FY 2009: $494,500 . FY 2010: $30,000. FY 2011: $278,500 to complete construction.

(5) Survey Boat HICKSON Replacement MDC 2441 – Portland District (Continuing). Replace the Survey Boat HICKSON, placed in service in 1968, because the engines and ancillary machinery are increasingly unreliable and at the end of their economic useful life. The 36-years old, two-stroke engines lack adequate exhaust conditioning to reduce emissions and greenhouse gases. The hull of the vessel will require extensive repairs in a few years. The HICKSON performs ocean port surveys and other surveys for dredging along the Oregon coast and is the only survey vessel in the Corps with size and power to transit rough seas between Pacific ports. Total estimated cost: $3,300,000. Prior Years: $2,937,486. FY 2010: $30,000. FY 2011: $292,514. Future Years: $40,000.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(6) Crane Barge KEWANEE Replacement MDC 2481 – Rock Island District (Continuing). KEWANEE crane barge, which is 88 years old, needs to be replaced due to corrosion combined with normal wear and tear that has deteriorated it to the point where repairs are no longer feasible. A breakdown of the KEWANEE crane barge causes costly delays in accomplishing the mission. The KEWANEE is used to support the Quad Cities crane barge during gate changes and provides daily support to structural maintenance gate repairs. The cranes and barges are vital to the operation of the maintenance unit for repairs to the miter gates. The barge, constructed in 1913, was converted to a crane barge in 1981. The crane is near the end of its life. Total estimated cost: $9,787,000. Prior Years: $9, 400,000. FY 2009: $370,000. FY2010: $17,000 to complete construction.

(7) Two Cranes for Illinois Waterway, 2707, Rock Island District (Continuing). The Cranes will be used for lifting work at the 8 Locks and Dams on the Illinois Waterway. The cranes will enable the crews to work in and around the lock chambers and dams doing major repair and maintenance work in a safe and efficient manner. This project entails development of crane technical specifications and GSA procurement of cranes to meet the operational requirements of lifting 100,000 pounds fully rotating at 38 feet. The cranes will be replacing aging 1989 and 1990 Manitowoc M-80 crawler cranes that are obsolete and no longer made. Repair costs are mounting and parts are getting harder to find. The control levers are worn causing a lot of slop in operations, the load indicators need to be replaced, the machines need to be repowered, the crane cabs are rusting out, and the electrical wiring is outdated and becoming a fire hazard. The cranes are increasingly down for repairs. Total estimated cost: $3,500,000. Prior years: $3,444,300. FY2010: $45,000. FY 2011: $10,700.

(8) Motor Vessel STRONG Replacement, 2730. Memphis District, (Continuing). A replacement vessel is required for the Motor Vessel STRONG. The Strong has been used on many occasions to assist the Revetment Unit, Mat Sinking Unit, and Dredge Hurley in towing of plant because of emergency conditions or equipment breakdown during the Revetment Season. The exact timing for any one of these missions is virtually impossible to predict because they are dependent on river levels and/or breakdown of other government or leased vessels. In the aftermath of Hurricane Katrina, the availability of motor vessels and barges for lease has become much more difficult. The increased horsepower and height of the new vessel will allow it to more safely and effectively respond to the needs of the Memphis District. The work includes development of a suitable progression of design and construction of one 2200-2500 BHP, self-propelled towboat. Total estimated cost: $14,000,000. Prior year: $824,100. FY 2010: $10,405,000. FY 2011: 2,328,900. Future Years: $442,000.

I **(9) Motor Vessel MUSCATINE Replacement, 2687, Rock Island District (Continuing).** The towboat is used to push maintenance barges for strike removal, rock placement, and repairs to structures. The towboat will replace the MV Muscatine, which was placed in service in 1976. The propulsion system and other major components have reached the end of their service where maintenance requirements are expected to ramp up in order to keep the vessel in operation. The new towboat will be based on an existing design, which was used for the MV DAVENPORT. The towboat is an essential component required to achieve mission responsibilities. Strike removal and repairs to control structures in the Mississippi require maneuvers in areas where strong currents can jeopardize the safety of the operation. The vessel is at times required to operate in perilous conditions near dams and other control structures where reliability and performance is mandatory to minimize risk to crews and other floating plant. The "state of art" design takes advantages of modern hull design and engine refinements which will reduce operating costs and simultaneously improve performance. Total estimated cost: $12,000,000. Prior Years: $11,192,800. FY 2010: $360,000. FY 2011: $305,000. Future Years: $142,200.

(10) Mobile Crane Replacement, Ft. Miflin Distribution Center, Philadelphia District (Continuing). Funding is required to replace the existing mobile crane with a state of the art, structurally sound and safer piece of equipment. Our intent is to procure a crane with increased capacity, from the current 60 ton to a 90-100 ton rating. The boom length will also be increased from the existing 100 ft. to 160-180 feet in length. These upgrades would enable a greater and safer lifting capacity on very heavy and critical lifts such as heavy castings, propellers, shafts, pump cases, spuds, trunnions, and elbows. The increased capacity will also enable reaches to the Port side of the Dredge McFarland when docked to assist with critical repairs. It would also be able to reach high enough to clear the side-cast boom of the dredge with parts and materials, which would greatly enhance the support to the vessel. The increased capacity will also allow it to reach areas of the floating plant which are currently inaccessible and be capable of making out-of-water lifts for repairs to larger survey vessels which can then be performed without having to rent or lease a crane and will save the expense of a drydock facility. Total estimated cost: $1,000,000. FY 2009: $1,000,000.

(11) 110 Ton Crawler Crane, Russellville Project Office, Little Rock District (Continuing). The new crane is needed to replace a 110 Ton crawler crane (originally project owned) that was surplussed several years ago for safety reasons. Since that time a smaller mobile crane (the vintage 1968, rehabbed in 1999, American

62 Ton mobile) loaded onto a barge has been used to perform the day-to-day work. The current crane has limited use and cannot handle larger jobs, which must be deferred until the River Fleet (Shorty Baird) is available. The current crane does not comply with the latest standards provided by the American National Standards Institute (especially critical for making personnel hoists) and has become more unreliable with breakdowns happening more frequently. Repairs are costly and require leasing a temporary crane costing between $8,000 and $10,000 per month plus delivery fees (approx $10,000). Total estimated cost: $920,000. FY 2009: $920,000.

(12) Replace Manitowoc 3900W Crane with Tracked Excavator, Mississippi River Project Office, Rock Island District, (Continuing). The project involves replacing a lattice boom crane purchased in 1988 with a modern hydraulic excavator. The excavator will operate from the existing crane barge and is a key component to many projects. Primary activities this machine is required to support include mechanical dredging and rock placement. In addition, the excavator is utilized to reopen the navigation channel when closures occur due to heavy silt. It is essential that this machine be reliable and ready to respond to emergencies. Total estimated cost: $1,738,900. FY 2009: $1,738,900. Project is not 100% fiscally complete yet.

(13) Dam Stilling Basin Dewatering Box and Barge, MDC 2811, Louisville District (Continuing). The dewatering box and transport/storage barge will be used to repair dam stilling basins at multiple Ohio River projects in the Louisville District. Deterioration of the current stilling basins has been observed and documented by diving inspections and show the loss of concrete is increasing. Many of these have exposed and missing rebar. The purchase of the dewatering box would permit the repair of stilling basins in a dry condition, providing a means for a more permanent and safer repair. The Louisville District has 54 stilling basins where the dewatering box can be used. The dewatering box and barge is a highly specialized piece of equipment that is not available on the commercial or surplus market. As a result, it is not possible to perform the required work by contract. Total estimated cost: $5,150,000. FY 2010: $100,000. FY 2011: $5,000,000. Future Years: $50,000.

(14) Revetment Crane Barge - Snag Barge, MDC 2800, Memphis District (Continuing). There are currently two barges but because of escalating costs only one barge will be replaced at a time. The first barge to be replaced is believed to be a 1958 series barge. The hull has deteriorated because of corrosion and harsh operating conditions. The barge has experienced leakage due to normal deterioration and extreme service. Loss of either barge could adversely impact the overall revetment mission. Total estimated cost of the first barge: $12,600,000. Prior Years: $300,000 for design. FY 2010: $11,775,000 to finish design and begin construction. FY 2011: $500,000. Future Years: $25,000.

(15) Two Striker Barges, MDC 2686, Rock Island District (Continuing). The project involves designing and constructing two new barges to replace the existing barges which have developed serious structural problems with the deck and deck support members. The current barges were under-designed for the purpose for which they are used and have deteriorated much faster than anticipated. The new barges are being designed to properly handle the loading that these barges receive to ensure better longevity and serviceability. In addition, the new design has much greater capacity which will reduce towing costs and thereby enhance efficiency. An economic analysis has been performed which shows that purchasing new equipment is the most cost effective solution. Total estimated cost: $6,400,300. Prior Years: $63,300 for design. FY 2010: $5,887,000. FY 2011: $350,000. Future Years: $100,000.

(16) Crane Barge (Strong Vessel), MDC 2733, Memphis District (Continuing). The project involves the design and construction of one crane barge. The current barge was obtained as salvage from the Coast Guard and will not be compatible with the motor vessel Strong replacement due to be delivered in FY09. The existing barge is narrower than the Strong replacement vessel and will create problems when setting buoys. The new barge will also have enhanced firefighting capabilities. Total estimated cost: $9,000,000. Prior Years: $29,600 for design. FY 2010: $8,500,000. FY 2011: $350,000. Future Years: $120,400.

(17) Motor Vessel CLINTON Replacement, MDC 2688, Rock Island District (Continuing). The project involves design and construction of a replacement towboat. The current vessel was placed in service in 1974 and the propulsion system and other major components have reached the end of their useful life. The towboat is used to push maintenance barges for strike removal, rock placement, and repairs to structures. The vessel is required to operate at times in perilous conditions near dams and other control structures where reliability and performance is essential in order to minimize risk to crews and other floating plant. Total estimated cost: $7,830,000. Prior Years: $17,600 for design. FY 2010: $5,330,000. FY 2011: $2,451,700. Future Years: $30,700.

APPROPRIATION TITLE: Revolving Fund- Plant Replacement and Improvement Program (PRIP)

(18) Replacement of Survey Boat Gillette, Wilmington District (Continuing). The project involves replacement of the current survey vessel which was built in 1971 and is beyond its useful life. The current vessel has developed a considerable amount of corrosion over the years and has a large amount of plate that needs to be replaced. The main diesel engines used in the boat do not meet the new environmental requirements and should be replaced with new fuel efficient and more environmentally friendly units. The replacement boat would have a wider beam which would provide a more stable platform for the Wilmington Harbor project surveys. The estimated cost is increasing from $1,100,000 to $2,100,000. The increase is to allow for purchase of new navigation and surveying equipment. Originally the equipment on the old vessel was going to be used but is was determined that the equipment is outdated and does not fulfill the mission. Total estimated cost: $2,100,000. FY 2010: $1,100,000. FY 2011: $1,000,000.

(19) Caterpillar LGP Wide-Track Bulldozer Replacement, Philadelphia District, (Continuing). This projectt involves replacing two bulldozers and one front end loader with three wide-track bulldozers. The primary mission of this equipment is maintenance and construction activities at the Fort Mifflin Field Office Facilities. Uses include the fabrication of sluices, ditching and ditch maintenance, earth moving operations and dredge pipeline and lumber relocation. The existing equipment is ten years old and becoming obsolete. Replacement parts are becoming more costly or unavailable. Restoring the existing equipment to a viable and safe condition would be economically unfeasible and would require a complete overhaul at a cost estimated to exceed 80% of the value of the plant. The new dozers provide more efficient operation and standard safety features not currently present on the old equipment. Total estimated cost: $900,000 ($300,000 per dozer). FY 2010: $900,000.

(20) Six Work Barges, MDC 2791, Mobile District (Continuing). The Mobile District possesses a fleet of deck barges that are used for performing navigation missions throughout the district's waterways to include three river systems, twenty two locks and dams and portions of the Gulf Intracoastal Waterway. A number of these barges have exceeded the expected useful life of forty years and are in need of major rehabilitation for continued use. The six barges will be direct replacements for two barges already excessed and the four oldest deemed too unsafe for continued service. Total estimated cost: $5,080,000. FY 2009: $5,000 for design. FY 2010: $4,815,000 to complete design and construction. FY 2011: $235,000. Future Years: $25,000.

(21) Crane Replacement and Crane Barge LEONARD Reinforcement, St. Paul District (Continuing). This project involves replacing a 300 ton hydraulic lattice boom crane and reinforcement of the barge on which the crane is mounted. The crane is used for lifting gates during lock chamber dewatering projects. The work needs to be initiated as soon as possible to address safety issues that were identified after a crane accident prompted a thorough review of the district's Link-Belt cranes. Disposal of all Link-Belt cranes with the same hydraulic control system was recommended. A total of eleven cranes will be removed from service, nine of which are smaller cranes that are used infrequently. Through proper scheduling, the new 300 ton crane can perform the work previously performed by the other eleven cranes. The cost of the 300 ton crane is estimated to be $2,500,000. Reinforcement of the deck of the Crane Barge LEONARD is estimated to cost an additional $1,300,000. Total estimated cost: $3,800,000. FY 2009: $3,800,000.

(22) Crane Replace for Willamette Valley, Portland District (New). The current crane supports multiple dams, hydroelectric facilities, and business lines within the Willamette Valley. The crane is sixteen years old and has been experiencing increasing breakdowns and does not fully support the mission requirements requiring rental of another crane at $145.00 per hour. The estimated annual cost of keeping the rented crane on site year round is $1,270,200. It has been determined that it is more cost effective to purchase a new crane that meets all mission requirements. The current Total estimated cost: $900,000. FY 2010: $900,000.

(23) Motor Vessel RUSSELBURG Replacement, MDC 2770, Louisville District (New). The project involves replacing the current workboat which is 15 years old and used extensively for lock and dam repair of Louisville District projects. Maintenance for the current boat is increasing and hindering accomplishment of the mission. The new boat will have more power for safer handling of the barges in the fleet during adverse river conditions. It will also be equipped with a larger crane that would be designed and rated for personnel handling. The current crane is not rated to handle personnel. Total estimated cost: $9,500,000. Prior Years: $25,000. FY 2010: $110,000. FY 2011: $550,000. Future Years: $8,815,000.

(24) Pipe Barges, MDC 2628, St Paul District (New). Project involves developing engineering alternatives, cost estimates, and acquiring used or surplus barges for transport of 3-5 thousand feet of 20 inch plastic discharge pipe used for dredging operations on the Upper Mississippi River. The minimum fleet Dredge GOETZ has been transitioning to significantly more plastic discharge pipe and discarding pontoons supporting steel pipeline as it becomes worn out. Currently the plastic pipe is floated between pontoons for transport to the next dredging location. A system of low lying or modified barges would provide a safer, more efficient and more cost effective mode of transportation. Total estimated cost: $700,000. Prior Years: $660,000. FY 2011: $40,000 to complete project. Project was originally a minor item but a cost increase caused the project to become a major item.

(25) Survey Vessel FLORIDA Replacement (New). The survey vessel FLORIDA was purchased in 1973 and has deteriorated to the point that it is not longer cost effective to maintain and repair. The condition of the vessel is no longer adequate to ensure efficient and reliable coverage of all assigned survey areas. Total estimated cost: $6,500,000. FY 2011: $6,225,000. Future Years: $275,000.

d. Fixed Land Plant and Automated Systems:

(1) Real Estate Management Information System (REMIS) – Corpswide (Continuing). The Army Corps of Engineers is the responsible agent for the acquisition and disposition of real estate for the Army Civil Works and Military projects and for the Air Force. REMIS is the tool that the Corps uses to administer and manage property that is out-granted at civil projects, Army bases and Air Force installations. REMIS is the official, auditable database of record for the Corps Civil Works Real Property Inventory (RPI) of public lands, buildings and structures. REMIS supports e-Gov as the official database of record for the real property inventory of Army and Air Force land holdings. Base Realignment and Closure (BRAC) actions are administered by the Corps and recorded in REMIS. REMIS serves as a Chief Financial Officer compliant subsidiary ledger to CEFMS (Corps of Engineers Financial Management System), and provides annual accountability reports to the GSA (General Services Administration). The current version of REMIS has performance gaps relating to: full compliance with the DoD Real Property Inventory Requirements (RPIR), DoDI 4165.14 Instructions, DoD Real Property Unique Identification Registry (RPUIR), and Geographic Information System (GIS) capability, Graphical User Interface, Data Sharing, Document Administration and Disposal. Closure of these performance gaps will enable REMIS to become a more competent tool for life-cycle accountable asset management. Total cost has increased from $6,900,000 to $10,400,000 to cover development of the interface for the eGIS component and increased implementation costs. Total estimated cost: $10,400,000. Prior Years: $4,824,000. FY 2010: $2,076,000 FY 2011: $3,500,000.

(2) P2: Corps of Engineers Programs and Project Management System – Corpswide (Continuing). This project represents scope and cost changes to the Corps of Engineers automated information management system, P2. The P2 project was completed and deployed in 2004. It was designed to support the business processes of Programs and Project Management for all districts, divisions, and the Corps headquarters. P2 currently uses two primary commercial off the shelf applications, which include Oracle Projects and Primavera software. There is also software which provides an interface between the two systems. Since deployment the system has experienced performance and reliability problems and is highly maintenance intensive. The Corps commissioned studies which resulted in the recommendation for an upgraded version of the system. Due to advances in commercial software it was found that with some additional programming Primavera could stand alone. This will simplify the system resulting in lower license fees, faster and more efficient response time, and greater system security. The user interface will be less complex resulting in greater productivity and provide a more useful tool. Project cost is increasing from $29,945,000 to $34,270,000. Cost increase is primarily due to the purchase of a new Continuance of Operation (COOP) server which protects the system from major failures, additional test and evaluation software, and new program management support tools. Total estimated cost: $34,270,000. Prior Years: $28,440,000. FY 2010: $4,040,000. FY 2011: $1,565,000. Future Years: $225,000.

(3) Facilities and Equipment Maintenance System (FEMS) – Corpswide (Continuing). FEMS is a Department of Defense migratory Computerized Maintenance Management System (CMMS). The Joint Logistics Systems Center (JLSC) developed the system to meet the needs of DoD maintenance organizations. This system was designated as a DoD migratory system in 1995. FEMS is the Corps tailored version of MAXIMO Enterprise Base Systems (MRO Software, Inc.), which is a Commercial-Off-The-Shelf-System (COTS) package. FEM is deployed at the Corps' two consolidated data processing centers, and integrates O&M business processes into a cost-effective asset management program. It supports and consolidates functions within each O&M business line providing the capability to track life cycle costs of all assets. FEMS was deployed in FY05/FY06 within the Northwestern Division. Development is ongoing to meet the requirements of E.O.13327 for asset management and to update the COTS product to web-based applications. This maintenance management system is the keystone to the development of a Sustainable Infrastructure Program for all Corps assets. Aging locks and dams and flood damage reduction structures, as well as coastal structures such as jetties, break walls and groins are in need of rehabilitation, repair and increased maintenance to prevent failure or major breakdown of navigation and flood protection systems. The FEMS will establish optimal preventive maintenance criteria to effectively reduce risk and improve reliability. Total estimated cost: $13,300,000. Through FY 2006: $9,255,000 for development. FY 2007: $ 1,805,000 to begin implementation. FY 2008: $440,000. FY 2009: $900,000. FY 2010: $900,000 to complete implementation.

(4) Electronic Document Management System (EDMS) - Corpswide (Continuing). Project involves purchasing and installing software for the Corps to implement a document management system and comply with Federal regulations. This document and records management initiative will establish policies, standards, and procedures to identify, classify, archive, preserve, and destroy documents. Total estimated cost: $8,586,000. FY 2010: $8,586,000.

(5) Army Corps of Engineers Information Technology (ACE-IT) Server Refresh - Corpswide (Continuing). Project includes purchasing hardware for the Corps enterprise information technology requirements over the next 5 years (technology refresh). The servers that are currently running the existing enterprise programs such as Program and Project Management System (P2), Corps of Engineers Financial Management System (CEFMS), and Operations and Management Business Information Link (OMBIL) are becoming obsolete and need to be replaced. In addition, servers will be purchased for emerging requirements such as the Enterprise Data Warehouse and, the Facilities and Equipment Management System (FEMS). Total estimated cost: $25,000,000. FY 2010: $5,000,000. Future Years: $20,000,000.

(6) USACE Enterprise Data Warehouse (EDW) - Corpswide (Continuing). The project involves development and implementation of the Enterprise Data Warehouse (EDW). The EDW provides a means for storing data from the various Corps systems in a standard format and a central location. The EDW supplements and will ultimately replace multiple legacy automated information system databases that provide only summary roll up reporting. These local systems provide analytical reporting solutions outside of the approved systems. The EDW will provide USACE leadership with an improved reporting capability, producing more comprehensive standardized analysis allowing for more informed decision-making. The EDW has attained a three-year authority to operate through the Army accreditation process. Since the inception of the EDW initiative the project has successfully completed a prototype, pilot, and limited production phase. Successful implementation of the EDW requires accurate analysis and re-design of USACE data structures. This enables the implementation of effective data sharing and data integration across USACE systems as well as with outside agencies. The EDW improves the Corps ability to monitor and report on the planning, budgeting and execution of projects across the organization, offering the USACE community increased functionality at a lower cost through the adoption of Enterprise information technology solutions. Total estimated cost: $6,650,000. Prior Years: $650,000 for design. FY 2010: $6,000,000.

(7) Test and Evaluation Program - Corpswide (Continuing). The USACE Test and Evaluation (T&E) program will centralize all automated information system application testing and technology research and evaluations. The test and evaluation program will be developed as the agency's "One-Stop" testing, evaluation, validation and verification authority for all information technology resources. The program will conduct testing of information technology hardware, commercial "Off-the-Shelf" software, and all enhancements to AIS legacy applications - including design, development, compatibility, interoperability, security, operational, regulatory compliance as well as product acceptance testing and verification. The program will be comprised of a complete in-house hardware and software infrastructure which creates a common operating picture (COE) for all test tools, reporting tools and verification and validation toolsets that will be used while conducting test operations. The program also creates all common business processes and procedures relative to the execution of testing operations - including test planning, test reporting, validation and verification of test results, data generation, media, and business processes relative to configuration management of AIS legacy applications and corporate data. Currently USACE tests and evaluates prospective technology and software solutions through highly decentralized processes using a myriad of non-standard hardware, software and business processes. As a result, it is increasingly difficult for USACE to have transparency and any accuracy or accounting into the legacy application development process - the current development/test environment does not enable the agency to accurately align developmental efforts with strategic business objectives on an incremental basis. Total estimated cost: $28,900,000. FY 2010: $5,900,000. FY 2011: $5,600,000. Future Years: $17,400,000.

(8) Water Management Enterprise Architecture (WMeA) Project – Corpswide (Continuing). The project involves developing and deploying a standard water management system at offices with a current water management mission which includes approximately 35 Corps districts and division offices. In addition to deploying hardware/software to the district and division offices, hardware and software will be deployed at the processing centers where a national Water Management Continuity of Operations Plan (COOP)spell out and a national Water Management Database will reside. The current system is decentralized and has been found to be lacking by divisions and HQ during emergency situations. A new centralized system will allow sharing of data with other Corps automated information systems and optimize the ability of the Corps information technology service provider to service and manage the Corps water management assets. Total estimated cost: $3,975,000. FY 2010: $1,840,000. Future Years: $2,135,000.

(9) USACE Learning Network (ULN), Corpswide (Continuing). The ULN is an Enterprise-wide Learning Management System. The system provides essential Corps of Engineers PROSPECT courses as web-based training. In addition, it enables on-line registration and payment for attendance and automates student reports and transcripts. It is estimated that the system will save the Corps approximately $8 million in travel and per diem cost over the first five years of operation. The Initial estimated cost for the project has increased from $3,600,000 to $6,475,000. Initial estimates did not include development for future years. This increase will allow for continued development through FY 2014. Total Estimated Cost: $6,475,000. Prior Years: $3,475,000. FY 2010: $500,000. FY 2011: $500,000. Future Years: $2,000,000.

(10) Walla Walla HQ – Install CAT VIa Data Cabling, Walla Walla District (New). The project involves replacing Category (CAT) III data cable which is obsolete with Category VIa which is the current accepted industry standard. Walla Walla District office is currently experiencing decreasing system performance issues. In order for the District to be able to support the next version of Microsoft Office products it is critical that the cable upgrade be accomplished. CAT VIa cabling will insure that the District has adequate capacity for the next 10-15 years. Total Estimated Cost: $1,509,000. FY 2011: $1,509,000.

e. Tools, Office Furniture, and Equipment

(1) Furnish Renovated Bolling Federal Building, Kansas City District (Continuing). The Kansas City District office is scheduled to relocate within the Bolling Federal Building. The furniture is required to accommodate the newly renovated space. The current furniture is over ten years old and cannot be used in the renovated space due to condition, age, and the variation in sizes. The new furniture will provide for standardized workstations for all employees. The funding will provide for 492 individual work stations, 33 private offices, and 9 conference rooms. An additional $28,700 in funding is required in FY09 in order to purchase new monitor arms and purchase an additional work station. Total estimated cost: $4,050,000. FY 2008: $4,021,300. FY 2009: $28,700.

(2) Purchase Furniture, Seattle District (Continuing). The district office is currently scheduled to relocate within the Seattle area starting in FY 2010. The furniture is required to accommodate the new ly renovated space. The current furniture is over 10 years old and is not compatible with the new office space. The new furniture provides standardized work stations and work areas. The order includes 505 work stations. Total estimated cost: $3,775,000. FY 2010: $125,821. FY 2011: $255,832. Future years: $3,393,347.

National Programs

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Inspection of Completed Works

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. l962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-Federal sponsor to identify the "items of local cooperation" for Corps projects, including operation and maintenance requirements. It also authorizes the Corps to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes, if the Corps has first notified the non-Federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform." To determine whether the non-Federal sponsor is performing as it has agreed, the Corps undertakes inspections of completed projects. Engineer Regulation 500-1-1, Emergency Employment of Army and Other Resources, Civil Emergency Management Program, Chapter 5, Rehabilitation and Inspection Program in conjunction with related policy guidance memoranda for the Corps Levee Safety Program establishes the policy for the inspection of Federal flood risk management projects which have non-Federal sponsors responsible for operation, maintenance, repair, replacement, and rehabilitation as specified in formal agreements based on Section 221 of the Flood Control Act of 1970 or other legislation.

LOCATION AND DESCRIPTION: The Corps civil works program includes approximately 11,750 miles of levees and floodwall systems, 383 reservoirs, and more than 90 storm damage reduction projects along 240 miles of the nation's 2,700 miles of shoreline. These account for a major portion of the projects protecting communities across the nation. Upon completion, and with the exception of reservoirs, most of the infrastructure built under this program is transferred to the sponsoring cities, towns, and special use districts to own and operate the projects. Many of these structures are adjacent to highly urbanized areas, and all of them require continued maintenance (either by the Federal government or Non-federal interests) after construction in order to ensure the project will function as intended to prevent loss of life and catastrophic damages; as well as preserve the value of the Federal investment; and to encourage non-Federal sponsors to bear responsibility for their own protection.

CONFERENCE AMOUNT FOR FY2010: $ 27.787 (millions)
BUDGET FOR FY2011: M: $ 0 **O:** $ 25.463 **T:** $ 25.463 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

FRM: $ 25,463,000 - See attached table for breakdown by state.

The Inspection of Completed Works activities encompass all federally constructed and primarily locally maintained flood risk reduction projects that meet the Corps condition requirements. In 2006, the U.S. Army Corps of Engineers created its Levee Safety Program with the mission to assess the integrity and viability of levees and recommend courses of action to make sure that levee systems do not present unacceptable risks to the public, property and environment. The Inspection of Completed Works Program is now guided by the Levee Safety Program. One of the main activities includes inspections of Federally authorized projects operated and maintained by a non-Federal sponsor. These inspections determine if the project will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; to identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities will include updating information in the National Levee Database; screening levees to rank them in order of risk; conducting pre-storm inspections of Federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with Corps policy and guidance for such proposals i.e. Section 208/408 proposals; and updating project operation and maintenance manuals.

OTHER INFORMATION: Coordination between the Corps and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying Corps' requirements, the improved inspection results will be made available on the National Levee Database for use by local, State, and other Federal agencies responsible for state and local Levee Safety Programs.

Division: National Program **District**: National Program **Project Name**: Inspection of Completed Works

FY 2011 INSPECTION OF COMPLETED WORKS PROGRAM

STATE	AMOUNT
Inspection Of Completed Works, AK	180,000
Inspection Of Completed Works, AL	30,000
Inspection Of Completed Works, AR	501,000
Inspection Of Completed Works, AZ	90,000
Inspection Of Completed Works, CA	4,604,000
Inspection Of Completed Works, CO	572,000
Inspection Of Completed Works, CT	292,000
Inspection Of Completed Works, DC	100,000
Inspection Of Completed Works, FL	900,000
Inspection Of Completed Works, GA	141,000
Inspection Of Completed Works, HI	642,000
Inspection Of Completed Works, IA	393,000
Inspection Of Completed Works, ID	288,000
Inspection Of Completed Works, IL	1,807,000
Inspection Of Completed Works, IN	800,000
Inspection Of Completed Works, KS	318,000
Inspection Of Completed Works, KY	679,000
Inspection Of Completed Works, LA	994,000
Inspection Of Completed Works, MA	349,000
Inspection Of Completed Works, MD	124,000
Inspection Of Completed Works, ME	148,000
Inspection Of Completed Works, MI	125,000
Inspection Of Completed Works, MN	463,000
Inspection Of Completed Works, MO	1,898,000
Inspection Of Completed Works, MS	143,000
Inspection Of Completed Works, MT	120,000
Inspection Of Completed Works, NC	255,000
Inspection Of Completed Works, ND	303,000
Inspection Of Completed Works, NE	343,000
Inspection Of Completed Works, NH	105,000
Inspection Of Completed Works, NJ	145,000
Inspection Of Completed Works, NM	740,000
Inspection Of Completed Works, NV	66,000
Inspection Of Completed Works, NY	858,000
Inspection Of Completed Works, OH	624,000
Inspection Of Completed Works, OK	261,000
Inspection Of Completed Works, OR	559,000
Inspection Of Completed Works, PA	744,000
Inspection Of Completed Works, RI	24,000
Inspection Of Completed Works, SC	64,000
Inspection Of Completed Works, SD	100,000
Inspection Of Completed Works, TN	70,000
Inspection Of Completed Works, TX	1,364,000
Inspection Of Completed Works, VA	367,000
Inspection Of Completed Works, VT	79,000
Inspection Of Completed Works, WA	750,000
Inspection Of Completed Works, WI	64,000
Inspection Of Completed Works, WV	279,000
Inspection Of Completed Works, WY	37,000
TOTAL	**25,463,000**

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Project Condition Surveys

AUTHORIZATION: Public Law 85-480, approved July 2, 1958 authorizes the Chief of Engineers to publish information, including condition surveys, that may be of value to the general public.

LOCATION AND DESCRIPTION: This national program consists of performing hydrographic surveys for Federally maintained navigation projects on a state-by-state basis. Hydrographic surveys are conducted for navigation channels, inlets and anchorages within, approaching and surrounding states.

CONFERENCE AMOUNT FOR FY 2010: $16,892,000
BUDGET FOR FY 2011: M: $0 **O:** $18,440,000 **T:** $18,440,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

Nav: $18,440,000 - Hydrographic surveys of Federal navigation channels are planned for Fiscal Year 2011 in order to disseminate the navigation channel condition for users of the waterways. This information is also used in the decision making process for channel maintenance operations. The selection of which projects to survey and scheduling of surveys is based upon channel usage, shoaling rates and maintenance dredging schedules. The need for Project Condition Surveys (PCS) is based primarily upon when that project was last surveyed. The surveys are generally conducted on a rotational basis, taking into account the expected sedimentation rates and historic maintenance. This generally includes projects that do not routinely receive O&M appropriations and that are not regularly maintained. For those projects scheduled to be dredged in the budget year, PCS for that segment of the project is not requested since that project will include pre- and post-dredging surveys. Another consideration in the use of funding for PCS is the ability to respond to unanticipated needs, including concerns raised by the U.S. Coast Guard, local harbor masters, or other agencies regarding projects that have become shoaled as a result of severe storms and/or abnormal deposition rates that may have compromised safe navigation. See table below in Other Information for breakdown by state.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

OTHER INFORMATION:

FY 2011 PROJECT CONDITION SURVEYS

PROJECT CONDITION SURVEYS, AK	$ 1,360,000
PROJECT CONDITION SURVEYS, AL	$ 100,000
PROJECT CONDITION SURVEYS, AR	$ 3,000
PROJECT CONDITION SURVEYS, CA	$ 2,132,000
PROJECT CONDITION SURVEYS, CT	$ 1,050,000
PROJECT CONDITION SURVEYS, DC	$ 30,000
PROJECT CONDITION SURVEYS, DE	$ 40,000
PROJECT CONDITION SURVEYS, FL	$ 1,450,000
PROJECT CONDITION SURVEYS, GA	$ 122,000
PROJECT CONDITION SURVEYS, HI	$ 604,000
PROJECT CONDITION SURVEYS, IL	$ 106,000
PROJECT CONDITION SURVEYS, IN	$ 185,000
PROJECT CONDITION SURVEYS, KY	$ 2,000
PROJECT CONDITION SURVEYS, LA	$ 60,000
PROJECT CONDITION SURVEYS, MA	$ 1,200,000
PROJECT CONDITION SURVEYS, MD	$ 475,000
PROJECT CONDITION SURVEYS, ME	$ 750,000
PROJECT CONDITION SURVEYS, MI	$ 430,000
PROJECT CONDITION SURVEYS, MN	$ 84,000
PROJECT CONDITION SURVEYS, MO	$ 4,000
PROJECT CONDITION SURVEYS, MS	$ 77,000
PROJECT CONDITION SURVEYS, NH	$ 275,000
PROJECT CONDITION SURVEYS, NJ	$ 1,506,000
PROJECT CONDITION SURVEYS, NY	$ 1,928,000
PROJECT CONDITION SURVEYS, OH	$ 295,000
PROJECT CONDITION SURVEYS, OR	$ 855,000
PROJECT CONDITION SURVEYS, PA	$ 170,000
PROJECT CONDITION SURVEYS, RI	$ 500,000
PROJECT CONDITION SURVEYS, SC	$ 625,000
PROJECT CONDITION SURVEYS, TN	$ 3,000
PROJECT CONDITION SURVEYS, TX	$ 451,000
PROJECT CONDITION SURVEYS, VA	$ 870,000
PROJECT CONDITION SURVEYS, WA	$ 459,000
PROJECT CONDITION SURVEYS, WI	$ 239,000
TOTAL	$18, 440,000

National Program Name: Project Condition Surveys

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Removal of Aquatic Growth

AUTHORIZATION: River and Harbor Act of 1899, as amended.

LOCATION AND DESCRIPTION: This national program provides annual mission essential prevention, control and removal of nuisance aquatic vegetation impacting, obstructing or threatening navigation in the Federal navigation channels in the Gulf Coast. This includes several hundred miles of channel with approximately 675,000 surface acres. Operational priority is given to controlling floating nuisance vegetation in order to keep the principal navigable waterways and locks open for navigation. Additionally, this vegetation displaces native species, changing community structure and altering ecological functions potentially impacting threatened and endangered species including the Everglades Snail Kite, Okeechobee gourd and the wood stork. These invasive species also interfere with operation and maintenance of levees and canals and compromise the integrity of the navigation and flood control structures.

CONFERENCE AMOUNT FOR FY 2010: $5,614,000

BUDGET FOR FY 2011: M: $4,910,000 **O**: $0 **T**: $4,910,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

Nav: $4,910,000 - The program consists of maintenance control operations to control vegetation in the Gulf Coast, including St. Johns, Kissimmee, Withlachoochee, Crystal and Ocklawaha Rivers in addition to the Okeechobee Waterway and Lake Okeechobee. Maintenance control is defined as keeping target vegetation at the lowest feasible levels to protect navigation interests. Anticipate controlling approximately 15,000 – 17,000 acres of vegetation in FY 2011. In addition the Corps will conduct educational outreach activities for our customers, conduct pre- and post-treatment surveys, ensure safety of our staff and the public and conduct an environmentally compatible program. The primary purpose of these operations is to control floating nuisance vegetation in order to keep the principal navigable waterways and locks open for navigation in the listed Federal Navigation projects. Coordination between the Corps and other Federal, state, and local agencies is conducted on a continual basis. The Florida Wildlife and Conservation Commission is the principal state agency involved in project coordination. See table below in Other Information for breakdown by state.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION:

FY 2011 REMOVAL OF AQUATIC GROWTH

REMOVAL OF AQUATIC GROWTH, FL	$ 3,500,000
REMOVAL OF AQUATIC GROWTH, LA	$ 1,410,000
TOTAL	$ 4, 910,000

National Program Name: Removal of Aquatic Growth

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operation and Maintenance

PROJECT NAME: Water/Environmental Certification.

AUTHORIZATION: Authorities inherent in project-specific authorizations for operation and maintenance for navigation purposes.

LOCATION AND DESCRIPTION: The water quality certification is for deep draft and shallow draft navigation projects. No dredging activities can be performed without necessary environmental and water certifications. This national program is to perform critical, routine activities needed to acquire or renew water and environmental certifications for projects that are not funded separately. Funding is for critical activities to acquire water quality, environmental certification, and coordination with other Federal, State and local agencies for cyclical dredging at projects that do not receive annual funding to ensure required environmental documentation. Projects are required to comply with local, state, and federal environmental laws and regulations. These activities provide the necessary effort to ensure compliance, including endangered species compliance.

CONFERENCE AMOUNT FOR FY 2010: $602,000

BUDGET FOR FY 2011: M: $0 **O**: $504,000 **T**: $504,000

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY 2011:

Nav: $504,000 - The Water/Environmental Certification activities encompass coordination with Federal and State natural resources agencies to meet environmental requirements associated with dredging for deep and shallow draft navigation projects. The primary purpose of these activities is coordination between the Corps and other Federal, local, and state agencies to meet environmental requirements associated with dredging. These projects are typically not regularly funded. Without Water Quality Certification renewal, extensive delays in dredging will result when funding is received for necessary dredging. See table in Other Information below for breakdown by state.

FRM: $ N/A

Rec: $ N/A

Hydro: $ N/A

ES: $ N/A

WS: $ N/A

OTHER INFORMATION:

FY 2011 WATER/ENVIRONMENTAL CERTIFICATION PROGRAM

WATER/ENVIRONMENTAL CERTIFICATION, FL	$ 400,000
WATER/ENVIRONMENTAL CERTIFICATION, VA	$ 104,000
TOTAL	$ 504,000

National Program Name: Water/Environmental Certification

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Surveillance of Northern Boundary Waters

AUTHORIZATION: Boundary Waters Treaty of 1909.

LOCATION AND DESCRIPTION: The main activities conducted under the Surveillance of Northern Boundary Waters Program is the support of the Boundary Waters Treaty of 1909 including technical and secretarial support of the International Joint Commission (IJC) and its Boards of Control, Committees, and various study boards. Activities are centered supporting the principles and mechanisms to help resolve disputes and to prevent future ones, primarily those concerning water quantity and water quality along the boundary between Canada and the United States.

CONFERENCE AMOUNT FOR FY2010: $ 14.818 (millions)
BUDGET FOR FY2011: M: $ 0 **O**: $ 9.478 **T**: $ 9.478 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY-2011:

FRM: $ 9,478,000 - See attached table for breakdown by state.

Specific LRD activities within the Great Lakes region include technical support for the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data; weekly regulation of Lake Ontario; lake level forecasting on a weekly and monthly basis; monitoring and oversight of the Lake Erie ice boom, Niagara Control Structure, and Niagara Falls flows; connecting channel depths forecasts bi-weekly; continuous monitoring of basin conditions; collection and dissemination of basin data; monthly regulation of Lake Superior; hydraulic modeling of the connecting channels and impact analyses due to dredging, construction or other projects; derivation of stage-discharge relationships for the connecting channels; computation of official outflows from the Great Lakes; computation of net basin supplies for the Great Lakes; water level gauging of the connecting channels; hydraulic discharge measurements and hydropower inspections to support treaty requirements and water use agreements; and, coastal process monitoring.

All of the above missions are ongoing areas of work. Upcoming efforts include: continued support for the International Upper Great Lakes Study which is looking at Lake Superior regulation; implementing adaptive management and supporting development of a new regulation plan for Lake Ontario; continued improvements to (and documentation of) forecasting operations, inclusion of new data sets and analyses techniques; continued improvements to hydraulic models including the addition of ice and weed retardation; and, more intensive monitoring of daily changes in basin hydro-meteorologic parameters.

MVD activities center around the 1925 Lake of the Woods Convention and Protocol, and the 1938 Rainy Lake Convention between the U.S. and Canada including International Lake level outflow compliance monitoring and assist in transboundary dispute resolution. Monitor & approve international apportion of water between Saskatchewan, North Dakota & Manitoba & monitor flood operations in 1989 Treaty between U.S. & Canada for water supply & flood control in Souris River basin & assist transboundary dispute resolution.

NWD activities include funding District work associated with IJC activities for the Kootenay Lake Board of Control and the Osoyoos Lake Board of Control. Work includes preparation of Annual Reports, monitoring Kootenay Lake and basin conditions for compliance with the 1938 IJC Order on Kootenay Lake, preparing for and attending Board and public meetings, and responding to miscellaneous issues and questions raised by the public, agencies, the Boards, and the IJC. A multi-year study is addressing technical, political, legal, environmental and societal issues, and trade-off analyses that will support a recommendation by the U.S. Entity to the State Department before 2014 as to whether the Columbia River Treaty should be continued, modified, or terminated after Sept. 2024.

OTHER INFORMATION:

Many stakeholders exist in the basin and are regularly served by these missions including: commercial navigation (i.e. Lake Carriers Association); hydropower production; recreational boating; shoreline property owners; academic and research institutions; other Federal agencies; state and local agencies; non-governmental organizations; environmental interest groups; and private citizen groups.

FY 2010 SURVEILLANCE OF NORTHERN BOUNDARY WATERS PROGRAM	
STATE	**AMOUNT**
Surveillance of Northern Boundary Waters, IL	689,000
Surveillance of Northern Boundary Waters, IN	125,000
Surveillance of Northern Boundary Waters, MI	2,501,000
Surveillance of Northern Boundary Waters, MN	446,000
Surveillance of Northern Boundary Waters, ND	35,000
Surveillance of Northern Boundary Waters, NY	635,000
Surveillance of Northern Boundary Waters, OH	257,000
Surveillance of Northern Boundary Waters, OR	4,100,000
Surveillance of Northern Boundary Waters, PA	107,000
Surveillance of Northern Boundary Waters, WA	74,000
Surveillance of Northern Boundary Waters, WI	509,000
TOTAL	**9,478,000**

O&M JUSTIFICATION SHEET

APPROPRIATION TITLE: Operations and Maintenance

PROJECT NAME: Scheduling of Reservoir Operations

AUTHORIZATION: Section 7 of the Flood Control Act of 1944 (as amended)

LOCATION AND DESCRIPTION: Funding provided for Nation-wide program to facilitate and coordinate the operations of Federal and non-Federal dams for which there is a Federal interest and investment in providing dedicated flood space.

CONFERENCE AMOUNT FOR FY2010: $ 6.682 (millions)
BUDGET FOR FY2011: M: $ 0.186 **O**: $ 7.08 **T**: $ 7.266 (millions)

DESCRIPTIONS OF WORK AND JUSTIFICATIONS (by Business Line) FOR FY-2011:

FRM: $ 7,266,000 - See attached table for breakdown by State.

NAD: Provide reservoir regulation instructions to regulate Savage River Dam, which is owned by Upper Potomac River Commission and Stevenson Dam, owned by the Commonwealth of PA.

NWD: Funds the Districts' portions of Division Water Management (Reservoir Control Center) budget; water control data collection; the portion of the total USGS Cooperative Stream gage Program which supports our eleven Bureau of Reclamation projects; and the District's daily Water Management activities in support of Bureau of Reclamation projects. This includes all aspects of daily operations within Division Water Management. Funding to the USGS Cooperative Stream gage Program maintains only those stream gages necessary for scheduling the release of flood control storage from Bureau of Reclamation projects. Of the twenty-nine multipurpose reservoirs within the District's area of responsibility, eleven are Bureau of Reclamation projects. These projects require District Water Management to develop and maintain water control plans; direct flood control operations; prepare monthly summary reports (R0168's); ensure daily review of stream gages; review and comment on Bureau of Reclamation annual operating plans for use of conservation storage; as well as review, comment and process deviations and manual-change requests through Division Water Management.

SPD: Funding supports typical activities which include data collection efforts and coordination for operational decisions, especially for flood releases, Water Control Manual updates, emergency and planned deviation requests, environmental reporting and coordination under NEPA and ESA, and other activities associated with safe operation of Section 7 dams.

SWD: Operation and regulation of non-USACE owned Dams, including labor, gate operations, reservoir control, data collection, administration costs, analyses, and travel associated with managing these projects. Also critical routine maintenance of stream gauge systems.

OTHER INFORMATION: None

FY 2011 SCHEDULING OF RESERVOIR OPERATIONS PROGRAM	
ITEM	**AMOUNT**
Scheduling of Reservoir Operations, AZ	33,000
Scheduling of Reservoir Operations, CA	1,751,000
Scheduling of Reservoir Operations, CO	765,000
Scheduling of Reservoir Operations, ID	499,000
Scheduling of Reservoir Operations, KS	100,000
Scheduling of Reservoir Operations, MD	47,000
Scheduling of Reservoir Operations, MO	327,000
Scheduling of Reservoir Operations, MT	270,000
Scheduling of Reservoir Operations, ND	253,000
Scheduling of Reservoir Operations, NM	532,000
Scheduling of Reservoir Operations, OK	900,000
Scheduling of Reservoir Operations, OR	92,000
Scheduling of Reservoir Operations, PA	46,000
Scheduling of Reservoir Operations, SD	144,000
Scheduling of Reservoir Operations, TX	194,000
Scheduling of Reservoir Operations, UT	653,000
Scheduling of Reservoir Operations, WA	447,000
Scheduling of Reservoir Operations, WY	213,000
TOTAL	**7,266,000**

REMAINING ITEMS

INVESTIGATIONS

Appropriation Title: Investigations – Fiscal Year 2011

Access to Water Resource Data

FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$3,000,000
Appropriation for FY 2010	$ 417,000
Budget Amount for FY 2011	$ 750,000
Change in FY 2011 from FY 2010	$ 333,000

AUTHORIZATION: Water Resources Development Act 2007; Section 2017.

JUSTIFICATION: The U.S. Army Corps of Engineers (USACE) Civil Works Strategic Plan presents a bold initiative for the USACE to manage our Nation's public water resources in collaboration with others through a watershed approach. The watershed approach recognizes that physical, chemical, and biological processes are intertwined and must be managed in an integrated manner. The USACE advocates a holistic view to sustainable water resources solutions in partnership with other Federal agencies, Tribes, State and local governments, and non-governmental organizations. America faces real water challenges — such as deteriorating infrastructure, increasing demands for water resources functions, competing water uses, and serious environmental challenges — in a climate of diminishing fiscal resources and fragmented responsibilities. Successful implementation of these strategic goals requires that the USACE provide access to water resources data and related water quality data to the public and all stakeholders for integrated water resources decision making.

Funds will be used to implement "Water Quality Data Management Implementation Plan" which calls for the Development of standard business processes, procedures and database models to manage water quality and quantity data generated by the full range of Corps water resources activities in conjunction with EPA, USGS and NOAA Water Control and Water Quality Programs. This may include water quality/quantity information associated with stream gages, water quality gages and other monitoring devices and water resources model and analytical tool output. These data include variables such as precipitation, water chemistry, temperature, evaporation, sedimentation, biological and habitat data, riverine discharges and stages, reservoir storage, inflows and outflow. This will include developing QA/QC processes and criteria for collected data. Water quantity and water quality data will be made available to the public through a standard web interface in a downloadable format as soon as quality assurance/quality control has been conducted by the USACE.

PROPOSED ACTIVITITIES FOR FY 2011: Provide public access to Water Control Data and initiate the implementation of the "Water Quality Data Management Implementation Plan". Develop policy and guidance regarding public access to Corps water quality and water management data; make data on the permits issued under the authority of the USACE (Clean Water Act and Rivers and Harbors Act) available to the public; develop tools and processes for making it easier to pull water control data into a central database.

ACCOMPLISHMENTS IN PRIOR YEARS:
1) Defined and implemented architecture to integrate District Water Control Data into a single database structure allowing for easy access by public
2) Executed survey of District offices to capture current Water Control/Quality Management Activities
3) Finalized "Water Quality Data Management Implementation Plan"

APPROPRIATION TITLE: Investigations -- Fiscal Year 2011

Coordination Studies With Other Agencies

m. Committee on the Marine Transportation System

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$ 900,000
Appropriation for FY 2010	85,000
Budget Amount for FY 2011	100,000
Change in FY 2011 from FY 2010	15,000
Balance to Complete Five-Year Program after FY 2011	800,000

AUTHORIZATION: Established as directed by the President in the *Ocean Action Plan – The Administration's Response to the U.S. Commission on Ocean Policy* – 17 December 2004.

JUSTIFICATION: The Committee on the Marine Transportation System (CMTS) was elevated to an interagency Cabinet-level committee by the President's Ocean Action Plan, December 2004. The CMTS held its first meeting in July 2005 and continues to meet 2-3 times per year. The Assistant Secretary of the Army (Civil Works) has been named as the Department of Defense (DOD) representative to the CMTS. The Chief of Engineers was selected to be the initial chair of the CMTS Coordinating Board, which advises and implements directives of the CMTS. An interagency Executive Secretariat supports the day to day activities of the CMTS on behalf of the Coordinating Board. The Corps is providing a full-time GS-15 liaison to the CMTS Executive Secretariat. This position reports to the Chief of Operations, HQUSACE, and HQ Operations has had the lead in CMTS coordination. The Corps has also been tasked by the CMTS to lead an interagency team to conduct an Assessment of the Current and Future State of the U.S. Marine Transportation System. This Assessment was initiated in FY 07 using reprogrammed UFR funds in the amount of $175,000 and interagency contributions. The Assessment was completed in FY 10. CMTS funds will also be used to support the DOD share of other initiatives requested by the Committee, including development of an MTS National Strategy, MTS Data and Information Portal, and MTS R&D Needs. The need to support CMTS activities will continue annually with increased funding in future years as the Corps assumes the leadership role of the CMTS Coordinating Board. Dedicated funding to support Corps participation in the CMTS is essential if the Corps and DOD are to be full participants with other Cabinet Departments and agencies in Committee activities and initiatives. Corps participation in CMTS is a priority for the ASA(CW), the Chief of Engineers and the Director of Civil Works.

PROPOSED ACTIVITIES FOR FY 2011:

- Publication of Assessment of the current state of the U.S. Marine Transportation System.
- Continue an interagency review of the Harbor Maintenance Trust Fund.
- Assess capability gaps and R&D needs for both the present and future state of the MTS.
- Coordinate with other Departments and agencies participating in CMTS and provide support for studies and initiatives requested by the Cabinet-level CMTS.

ACCOMPLISHMENTS IN FY 2010: USACE served as rotating chair the CMTS Coordinating Board. Completed Corps-led Integrated Action Team on an Assessment of the Marine Transportation System. Supported senior leaders and ASA(CW) participation in CMTS cabinet-level and Coordinating Board meetings and activities. Participated in interagency working groups and reviews.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. Surveys

Coordination With Other Federal Agencies, State, and Non-Federal Interest Other Coordination Programs

The CALFED Budget amount is $100,000, which is a portion of the CALFED coordination funds cited in section 103(f)(4)(A) of PL 108-361, the CALFED Act. The funds will be used to continue program support, coordination, and USACE representation efforts in the Federal and State CALFED process in Fiscal Year 2011. The CALFED Record of Decision named the Corps and State of California as implementation co-mangers of the CALFED Levee System Integrity program. As stated in section 103(f)(4)(A) of PL 108-361, the CALFED Act, the Corps budgets funds for program management, oversight, and coordination. Activities stated in the Act include: program support; program-wide tracking of schedules, finances, and performance; multi-agency oversight and coordination of program activities to ensure program balance and integration, development of interagency cross-cut budgets and a comprehensive finance plan to allocate costs in accordance with the Record of Decision; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act; and development of annual reports.

APPROPRIATION TITLE: Investigations, FY 2011

1. SURVEYS

e. Cooperation with Other Federal Agencies, States, and Non-Federal Interests

(5) Chesapeake Bay Program. The amount of $75,000 will be used to continue, increase, and invigorate activities initiated under Special Investigations. The Chesapeake Bay Program (CBP) is an interagency program, initiated by the US Environmental Protection Agency (EPA), for the protection and restoration of the bay's natural resources. These natural resources have tremendous environmental and economic significance to the northeast region and to the Nation. Following extensive Corps of Engineers investigations and EPA studies in the 1970's and early 1980's, it became increasingly clear that the Chesapeake Bay as a system was under intense pressure from development and overuse and was undergoing degradation in water quality, living resources and other ecological indicators. The Baltimore District will continue participation and provide leadership involvement in the CBP Implementation Committee; the Federal Agencies Subcommittee; the Living Resources, Monitoring, Modeling and Toxics Subcommittee; and numerous workgroups addressing various subjects such as regional sediment management, wetlands, submerged aquatic vegetation, and land stewardship.

ASA (CW) was a signatory on a Special Tributary Strategy for Federal Lands in the District of Columbia agreement that commits the Corps to develop stormwater pollution prevention and nutrient management plans. The Baltimore District will play a key role on this Special Tributary Strategy as well as initiate activities to enhance stewardship of Corps -owned land within the Bay watershed. Many of these actions affect Corps authorized missions in the Chesapeake Bay.

The District participated in development of Executive Order (E.O.) 13508: Chesapeake Bay Protection and Restoration, signed by President Obama on 12 May 2009, which uses the Chesapeake Bay as a pilot for other "national treasures". The District is also intimately involved in the Federal Leadership Committee for the Chesapeake Bay, Agency Action reports in support of the E.O., and on Goal Implementation Teams. All of these efforts require extensive consultation and collaboration to achieve successful shared leadership, planning, accountability, and restoration of the largest estuary in the United States of America.

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(c) The Coordination with Other Water Resources Agencies Budget amount is $200,000. Cooperation with the Department of Agriculture (USDA) is under the Watershed Protection and Flood Prevention Act of 1954 (Section 5 of PL 566-83), as amended; the Flood Control Act of December 22, 1944 (Section 1 of PL 534-78), as amended; and the National Environmental Policy Act of 1969 (PL 91-190). Executive Order No. 10913, dated 18 January 1961, requires that cognizance be taken of constructed and contemplated upstream and downstream USDA works, and that plans be submitted to the Secretary of the Army for review and comment prior to their transmission to the Congress through the President. As the agency responsible for the flood control features of basin program, the Corps of Engineers must provide the Department of Agriculture with information on proposed Corps projects, including their effect on contemplated watershed programs. The Corps is also required by Section 102 (2)(c) of the National Environmental Policy Act of 1969 to review the environmental impacts that would result from installation of USDA project features. Cooperation with the Bureau of Reclamation of the Department of the Interior includes preparation of estimates of flood control requirements, and benefits, and reservoir operating criteria for storage reservoirs to be constructed with Federal funds, in accordance with Sections 1 and 7 of PL 534-78 and Section 7 of PL 984-84, as amended. Studies made by the Bureau of Reclamation of the flood control features of proposed reclamation projects are submitted to the Corps of Engineers for review and determination of the flood control benefits. The Corps of Engineers uses the data collected by the Bureau but makes an independent evaluation of the project. The Secretary of the Interior uses the report of the Chief of Engineers in making allocation of project costs to flood control. Corps representation is required for cooperation with Federal and state agencies such as River Basin Compact Commissions; Interstate River Basin Compacts; and Regional Planning Commissions in authorized, but unfunded investigations.

APPROPRIATION TITLE: Investigations, Fiscal 2011

The Gulf of Mexico Program (GMP) budget amount is $100,000 and will be used to continue the Corps' participation in the Gulf of Mexico Program. Funds will be used to support participation by Corps personnel from Gulf districts/divisions in the execution of the Corps efforts to advance the Regional Sediment Management and Community Awareness of the Gulf of Mexico Alliance - Governor's Action Plan. The Gulf of Mexico Program/Coastal America partnership uses a cross-cutting collaborative approach to formulate and implement creative, place-based, non-regulatory solutions to economic and environmental issues with Gulf-wide and national implications. Funds support participation by Corps personnel from the Gulf districts and divisions in the execution of the Ocean Action Plan: Gulf of Mexico Alliance - Governor's Action Plan as follows: 1) refining sediment models and production of the Gulf Regional Sediment Management Master Plan (GRSMMP); and, 2) Community Resilience (CR). The bulk of the funds will be used to support these two alliance efforts to execute Corps' commitments in the Gulf of Mexico Alliance Action Plan II. A portion of the funds will also be used to support a Corps staff member who: 1) functions on the CA regional Team as Co-chair, CA - Gulf Regional Implementation Team (CA-GRIT), 2) coordinates with district, ERDC and IWR personnel to advance RSM and CR efforts, and 3) manages the program funds.

(f) The Interagency and International Support budget amount is $700,000 and will allow the Corps of Engineers to support other Federal agencies, international organizations and foreign governments to address problems of national significance to the United States under the authority of Section 234, WRDA 1996 and to collaborate with other countries on water resources and other matters The Corps of Engineers has widely recognized expertise and experience in water resources, infrastructure planning and development, and environmental protection and restoration. Other Federal agencies, particularly the State Department, the Agency for International Development, and international organizations such as the World Bank and the United Nations, can benefit from use of the Corps talents. In many cases the Corps abilities to perform its civil works mission and promote national security interests especially those related to stability objectives are also enhanced. Program fund usage may include support to the State Department on international water issues including strategic cooperation with the Mekong River Commission, the World Water Council, USACE involvement on various interagency and international task forces and conferences, assisting US Embassies with strategic interactions with foreign governments, water resources cooperation with other countries including strategic cooperation with Brazil, and other initiatives. A significant portion of the funds may be used for:

(1) The Corps' International Center for Integrated Water Management (ICIWaRM) under the auspices of UNESCO, technical coordination and management of the hydrologic science and integrated water resources management (IWRM) related activities of the US National Committee for the UNESCO International Hydrological Programme (IHP), of which USACE is an agency member, scientific interaction with UNESCO's global and regional water centers, including those for which the Corps has Memorandum's of Understanding (MOU's): the Center for Arid and Semi-Arid Zones in Latin America and the Caribbean (CAZALAC); the Institute for Water Education (IHE); the International Center Hazards and Risk Management (ICHARM) and other UNESCO water centers and IHP initiatives. In FY11 ICIWaRM will continue efforts to support USG interests by providing training and capacity development for water managers and technical assistance for water security in developing and emerging nations, with focus-area initiatives in Africa, Latin America & the Caribbean, and Asia. Also in FY11, USACE plans to continue its multilateral engagement with the United Kingdom, the Netherlands and Japan on the sharing of technical knowledge on: flood risk management methods and tools, approaches for integrated water resources management (IWRM) at the river basin level, and incorporating water resources adaptation strategies for climate change as applied to water management and systems operations.

(2) Corps collaboration with the Netherlands Rijkswaterstaat to continue to gain knowledge from the Dutch in a number of areas. This exchange initiated in FY 2005 has been particularly useful in the wake of our coastal hurricanes and the Dutch have been quite responsive and helpful to us. The following are thrust areas that have been mutually identified. Dredging: The Dutch have extensive experience in this area and we stand to benefit greatly from their technologies and lessons learned. Sample targeted areas for sharing include: Re-suspension of sediments due to dredging; contaminated sediments: risk assessment, remediation options, confined disposal, and beneficial use; and methods to reduce dredging costs through contracting and market forecasting. Coastal Zone Management: The Dutch have devised an extensive range of structural and non-structural approaches related to coastal zone management. Their Room for the River process involves a number of innovative techniques designed to improve floodplain management. They have built an impressive network of storm surge barriers, flood gates, reinforced levees and flood walls. Risk and Reliability: The Dutch have worked closely with us on post-Katrina support and they have developed a unique approach to addressing flood and storm safety. The two nations have much to share in terms of taking the notion of risk and reliability to a higher level.

(3) Corps water resources technical exchange of information with Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLITT). Under the terms of the 2008 (extension of a 2003 agreement) agreement on cooperation, USACE and MLITT alternate with formal annual visits to each agency in addition other periodic interactions. The agreement has not only fostered the exchange of water resources technical and management information, but also may be considered part of the growing relationship on cooperation on addressing large scale disasters, improving water conditions that lead to country stability, and the overall US-Japan relationship so important to our security interests in Asia.

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(f) The Interagency Water Resources Development budget amount is $955,000. This amount provides $750,000 for Corps of Engineers district activities, not otherwise funded, that require coordination effort with non-Federal interests. These activities include items such as meeting with City, County and State officials to help them solve water resources problems when they have sought advice or to determine whether Corps programs are available and may be used to address the problems. This will also cover costs of meeting with potential study sponsors before studies are budgeted to insure they understand study cost sharing and to obtain an indication of their interest in participating in a future study. It includes funds for two American Heritage River Navigators who are supported by the US Army Corps of Engineers, based upon Executive Order 13061, dated 11 September 1997. River Navigators have provided support to the Community Partners for the New River, which flows through NC, VA and WV; and for the Upper Mississippi River above St. Louis, MO. They have assisted individual communities and community partners in accessing other Federal programs. Funds are also included to contribute to the Coastal America Partnership, including $25,000 to assist in supporting the national office and up to $80,000 in support of the regional teams. This amount also includes $100,000 to sustain the benefits of the Great Lakes Habitat Initiative to continue multi-jurisdictional coordination, enhance decision-support capability, improve and advance monitoring.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(g) National Dam Inventory

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$ 900,000
Appropriation for FY 2010	359,000
Budget Amount for FY 2011	400,000
Increase of FY 2011 over FY 2010	41,000

AUTHORIZATION: Section 215 of the Water Resources Development Act of 1996 (Public Law 104-303) authorized $500,000 to be appropriated each fiscal year for the maintenance and publication of the National Dam Inventory. This authorization was continued in the Dam Safety Act of 2006 (Public Law 109-460) and the amount authorized was increased to $850,000 for fiscal year 2011.

JUSTIFICATION: The Inventory was initially compiled in 1975 has been periodically updated to reflect construction of new dams, ownership changes, major modifications to existing dams, decommissioning and removal of dams, and improvements in the accuracy and completeness of the data. The current update includes over 84,000 dams, and focuses on current technology, integrating computer software into the inventory package to improve the ease of use, accuracy, and accessibility of the data. Annual funding is used to implement improved information flow and data quality control processes, to greatly enhance the state of knowledge management for dam safety. The importance of continued maintenance and publication of the National Dam Inventory has increased. The inventory is now required for use by the Secretary of Homeland Defense and the National Dam Safety Review Board in the allocation of dam safety program assistance funds to the various States in proportion to the number of dams in the state. Inventory data is also included in the biennial report to Congress on the National Dam Safety Program. The Inventory also plays an important role in the identification of infrastructure in risk due to terrorist activities. The ongoing maintenance and publishing of the Inventory is a coordinated effort involving data from the Federal and non-federal Dam Safety community in cooperation with the Interagency Committee on Dam Safety (ICODS) and the Association of State Dam Safety Officials (ASDSO).

PROPOSED ACTIVITIES FOR FY 2011: These funds will be used for continued maintenance and publication of the National Dam Inventory. During 2010 a request was made to the state dam safety agencies and Federal dam owning agencies to update the data in the inventory to include the inclusion of an analysis of the condition of dams for at least 70% of the dams under their jurisdiction in accordance the Dam Safety Act of 2006. Inclusion of an analysis of the remaining dams will be scheduled for FY 2011. The inventory will continue to be improved utilizing rapidly evolving technology including enhanced World Wide Web access, a Geographic Information System (GIS) interface, and integration with other dam safety resources. Funding at this level will not provide for inclusion of the assessment of dams in the National Inventory of Dams during FY2010. Additional efforts are also required to ensure data security in response to Homeland Defense directives. Integration of the National Inventory of Dams with the Dam Security and Analysis System to identify terrorist threats to dams will be delayed until future fiscal years.

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(g) National Dam Inventory

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

ACCOMPLISHMENTS IN PRIOR YEARS: An updated inventory was published during 2010. This inventory was based on data provided by the state and Federal agencies during 2009. The National Dam Safety Review Board adopted the classification codes to be used for the analysis of dam condition during the next submission of data for the inventory. Routine maintenance continued on the inventory along with providing an internet based inventory available to all Federal, state, and local government agencies and the public. During calendar 2009 there were over 100,000 inquiries to the inventory on the internet.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. Surveys

Coordination With Other Federal Agencies, State, and Non-Federal Interest Other Coordination Programs

The Corps' FY 2011 budget amount for Lake Tahoe is $100 000. This funding is required to continue work associated with the Lake Tahoe Federal Interagency Partnership as directed in Executive Order 13057. The Federal Interagency Partnership is working with state and local agencies and public interest groups to arrest further deterioration of Lake Tahoe while maintaining a viable economic climate.

The FY2011 funds will provide for full active participation in Partnership Activities (includes working with local and state agencies, public advisory committees, Southern Nevada Public Lands Management Act (SNPLMA) program participation, and staff work to support District, Division and HQ executive level involvement).

APPROPRIATION TITLE: Investigations, FY 2011

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(i) The National Estuary Program budget amount is $50,000. These funds will be used to participate with Federal and State agencies in the National Estuary Program (NEP) administered by the Environmental Protection Agency under the Water Quality Act of 1987 (Section 320 of PL 100-4). The NEP is an interagency planning program to develop management plans for nationally significant estuaries designated by the EPA. To date, the following 28 estuaries have been designated under the program: Puget Sound, WA; Delaware Estuary, DE, NJ & PA; and Delaware Inland Bays, DE; New York/New Jersey Harbor, NY-NJ; Sarasota Bay, FL; Santa Monica Bay, CA; San Francisco Bay, CA; Galveston Bay, TX; Albermarle/Pamlico Sound, NC; Buzzards Bay, MA; Narrangansett Bay, RI; and Long Island Sound, CT-NY, NY; Massachusetts Bay, MA; Barataria/Terrebonne Bays, LA; Indian River Lagoon, FL; Casco Bay, ME; Tampa Bay, Fl; San Juan Bay, PR; Corpus Christi Bay, TX; Tillamook Bay, OR; Peconic Bay, NY, Barnegat Bay, NJ; Charlotte Harbor, FL; Lower Columbia River Estuary, OR & WA; Maryland Coastal Bays, MD; Mobile Bay, AL; Morro Bay, CA; and New Hampshire Estuaries, NH. Because of extensive Corps involvement with Federal water resources projects in the nation's estuaries and other responsibilities in waters of the U.S., the Corps has been asked to participate on the management and technical advisory committees of those NEP estuaries being studied. Funds would also be used to cover costs of Corps field office meeting attendance, field reconnaissance, and data transfer.

Coordination Studies With Other Agencies

Other Coordination Programs (Continued)

(j) The North American Waterfowl Management (NAWMP) budget amount is $50,000. These funds will be used to continue cooperation with Federal and State agencies, and non-Federal interests in support of the NAWMP administered by the Department of the Interior, Fish and Wildlife Service. The NAWMP is an international program designed to reverse downward trends in North America's waterfowl populations by protecting and improving waterfowl habitats nationwide, particularly in 34 areas within the United States identified as being critical to meeting NAWMP goals and objectives. Department of the Army support to the NAWMP is set forth in an agreement signed with the Department of the Interior on January 23, 1989. The Corps of Engineers has broad water resources development responsibilities and authorities and has stewardship responsibilities for over seven million acres of water and land. Many Corps of Engineers projects contribute directly or indirectly to the habitat base for the nation's waterfowl, and other wetland species. Current and future Corps of Engineer projects are expected to play an even greater role, particularly during years of low rainfall. Also, the Corps of Engineers has recognized extensive environmental engineering and technical expertise and experience that can contribute greatly toward meeting the NAWMP waterfowl habitat improvement goals and objectives. Funds would also be used to cover costs of Corps of Engineers field office participation in the field trips, interagency coordination meetings, and information transfer in response to conditions set forth in the agreement between the Department of the Interior and the Department of the Army.

APPROPRIATION TITLE: Investigations, FY 2011

Coordination Studies with Other Agencies

Other Coordination Programs (Continued)

(k) The Pacific Northwest Forest Case Study budget amount is $50,000.

The Northwest Forest Plan (NFP) is an interagency program, initiated by the White House's Council of Environmental Quality, for ecosystem management of the public lands in the Pacific Northwest within the range of the Northern Spotted Owl. In FY 1999, the Corps of Engineers became an official signatory agency to the NFP Memorandum of Understanding. The NFP institutes an interagency approach for restoring and protecting animal and plant species on public lands and provides for economic assistance to impacted communities. With these funds , Seattle District under the Northwestern Division will be able to resurrect its partnership with Mt. Baker-Snoqualmie and Olympic National Forests, other Federal agencies, local Watershed Councils, and state and tribal forums and workshops; and more importantly participate fully on the Provincial Advisory Committees for the two National Forests. The District will provide technical support for watershed evaluation and restoration planning through Corps expertise, participate in reviews of restoration and monitoring plans, and assist in the implementation of restoration projects and species protection. NFP funding will enable the Corps to continue to work cooperatively with its other Federal NFP partners (USDA Forest Service, Bureau of Land Management, US Fish and Wildlife Service, National Marine Fisheries Service, National Park Service, Environmental Protection Agency, Bureau of Indian Affairs, and Natural Resource Conservation Service) and the State of Washington. NFP participants are presently concentrating on the development of coordinated Implementation Monitoring and Effectiveness Monitoring Programs while continuing to refine and implement its watershed ecosystem management strategies. The NFP presents the best opportunity for the Corps to expand its involvement with the other agencies of the Federal and State communities to use all of our engineering and environmental capabilities to address many of government's missions.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Coordination Studies with Other Agencies (Continued)
Other Coordination Programs (Continued)

(l) Special Investigations

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$1,550,000
Appropriation for FY 2010	1,408,000
Budget Amount for FY 2011	1,550,000
Increase of FY 2011 over FY 2010	142,000

SCOPE. Investigations of potential flood risks, drainage, channel and harbor improvements, anchorages, and environmental restoration including:

(1) Review of preliminary permit and licenses applications, in collaboration with the Federal Energy Regulatory Commission (FERC) for non-Federal hydroelectric power development either at, or affecting, Corps water resource projects.

(2) Special investigations of nominal scope and reports prepared pursuant to Congressional and other requests from outside the Corps of Engineers for information relative to projects or activities not covered by other funding resources;

(3) Similar work of detailed scope, as specifically authorized by the Chief of Engineers; and

(4) Review of reports and environmental impact statements of other agencies.

APPROPRIATION TITLE: Investigations, FY 2011

Coordination Studies With Other Agencies

Planning Assistance to States

SCOPE: This Corps of Engineers program stems from Section 22 of the Water Resources Development Act of 1974, as amended, which authorizes the Secretary of the Army to assist States, local governments, Indian tribes, and other non-Federal entities in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. The studies are cost-shared on a 50% Federal, 50% non-Federal basis. The program can encompass many types of studies dealing with water resources issues, including environmental conservation/restoration, wetlands evaluation, water supply and demand, water quality, flood damage reduction, coastal zone management, and dam safety.

SUMMARIZED FINANCIAL DATA:

Budget Amount for FY 2011	$7,000,000
Allocation for FY 2010	$7,161,000
Change in FY 2011 from FY 2010	$ -161,000

JUSTIFICATION: The Planning Assistance to States program has continued to evolve into a highly effective tool for providing technical and planning assistance to states, local governments, and Indian tribes. As more states are developing hazard mitigation plans, watershed plans and floodplain management plans, this program provides the opportunity for the Corps to provide expertise. This program supports the initiative to facilitate the pre disaster and post disaster assistance. This program has been used to develop erosion control designs that a region continues to use today which has improved water quality, helped with flood damage reduction and saved significant resources. The states, local governments, and Indian tribes recognize the need to develop locally directed solutions to their water resources problems and this program continues to grow. The FY 2011 amount will enable the Corps to provide much needed planning and technical assistance to help in a wide variety of water resource efforts, including environmental restoration studies, and watershed planning. The program funds are first utilized for Congressional Adds and then for ongoing studies which can be completed within the fiscal year. The balance of the program funds are distributed across the country for each of the Corps Major Subordinate Commands (MSC) to assess, prioritize, and fund the needs of the MSC region.

APPROPRIATION TITLE: Investigations, FY 2011

Subject to funding, studies which could be completed in FY 2011 include:

State	Study	Completion Amount (Dollars)
AR	PAS Masterplan-Jonesboro	486,750
AZ	PAS - Arizona Department of Water Resources Flood Warning System Ph 2	150,000
CA	Churchhill, CA	30,000
CA	Humboldt County, CA Tsunami	50,000
CA	PAS - City of Los Angeles, CA Flood Plain Delineation	150,000
CA	PAS - County of Los Angeles, CA Water Resource Outreach	150,000
CA	PAS - Soboba Band of Indians, CA Flood Risk Management Study	75,000
CA	San Lorenzo Creek, Alameda County, Flooding	60,000
CA	San Mateo County, CA Levee Design	75,000
GA	PAS-GA- Effington County SWMP	48,000
IA	Amana Floodplain Study	50,000
IA	Davenport Stormwater Management Study	125,000
IA	Nishnabotna River Basin, IA	361,300
ID	PAS - Weiser River Flood Plain	50,000
IL	Dekalb County Watersheds & Groundwater Planning	100,000
IL	Moline River Front Master Planning	125,000
IL	Moline-Rock Island Water Systems Study	80,500
IL/MO	Lock & Dam 24 Hydropower Study	200,000
IL/MO	Lock & Dam 25 Hydropower Study	200,000
LA	Chitimacha Flood Risk Assessment	100,000
LA	Chitimacha Recreational Planning	100,000
LA	Chitimacha Reservation Site Planning	150,000
LA	Chitimacha Water Resources Inventory	150,000
LA	Coushatta Master Plan	100,000
LA	Coushatta Water Resource Mapping	200,000
MS	Mississippi Band of Choctaws	100,000
LA	Tunica H&H Analysis	150,000
LA	Tunica Water Resources Inventory	150,000

APPROPRIATION TITLE: Investigations, FY 2011

KS	Neosho Basin Management Plan, KS	50,000
KS	PAS - Atchison, KS Water Infrastructure	200,000
KS	PAS - KS River Water Res Study	50,000
KS	PAS -Kansas City, KS Water Infrastructure	200,000
KS	Sunflower Water Coalition Study, KS	25,000
LA	Bayou St. John Master Plan	150,000
LA	Calcasieu Parish Master Plan	125,000
LA	St. John Monumentation	160,000
LA	Town of Henderson Masterplan	30,000
MA	Penn's Hill Drainage Study, Quincy	15,000
MA	Town Line Brook Drainage Assessment, Malden	15,000
MD	Howard County Stormwater Modeling	50,000
MO	PAS - MO MDNR Central Missouri	50,000
MO	St. Charles Riverfront	90,000
MS	City of Hernando	250,000
MS	City of Southaven	250,000
MS	Horn Lake Master Plan, MS	400,000
ND	Red River of the North Unsteady Flow	50,000
NJ	North Haledon	50,000
NM	Luna County Drainage Management Plan, NM	250,000
OK	Eastern Shawnee System & Supply, OK	50,000
OK	OK Comprehensive Water Plan, OK	500,000
OK	Shawnee Water Yield Study, OK	40,000
OK	WD Mayo Hydropower Project, OK	40,000
OR	PAS Beerman Creek Watershed Study	75,000
OR	PAS Boone Nute Slough	27,000
OR	PAS East Valley Water District Drift Creek Reservoir	100,000
OR	PAS Lower Columbia River Upland Disposal Facility	200,000
OR	PAS Nehalem River ODOT Flood Mapping	200,000
OR	PAS Portland Balanced Cut and Fill Study	35,000
PA	Gloucester County Groundwater Modeling-Phase 2	27,000
TN	W-TN Conservation Study	100,000
TX	Amistad Reservoir Hydrographic Survey, TX	65,000

APPROPRIATION TITLE: Investigations, FY 2011

TX	Bardwell Lake Hydrographic Survey, TX	20,000
TX	Belton Lake Hydrographic Survey, TX	28,000
TX	Caddo Lake Hydrographic Survey, TX	38,000
TX	Canyon Lake Hydrographic Survey, TX	25,000
TX	Grapevine Lake Hydrographic Survey, TX	24,000
TX	Hubert H. Moss Lake Hydrographic Survey, TX	18,000
TX	Lake Athens Hydrographic Survey, TX	18,000
TX	Lake Crook Hydrographic Survey, TX	18,000
TX	Lake Georgetown Hydrographic Survey, TX	18,000
TX	Lake Limestone Hydrographic Survey, TX	28,000
TX	Lake Livingston Hydrographic Survey, TX	80,000
TX	Lake Murvaul Hydrographic Survey, TX	20,000
TX	Lake Palestine Hydrographic Survey, TX	35,000
TX	Lake Texoma Hydrographic Survey, TX	72,000
TX	Lake Tyler Hydrographic Survey, TX	20,000
TX	Lake Waco Hydrographic Survey, TX	23,000
TX	Lake Waxihachie Hydrographic Survey, TX	17,500
TX	Lost Creek Reservoir Hydrographic Survey, TX	17,000
TX	Martin Lake Hydrographic Survey, TX	20,000
TX	Millers Creek Reservoir Hydrographic Survey, TX	19,000
TX	Monticello Reservoir Hydrographic Survey, TX	19,000
TX	Mountain Creek Reservoir Hydrographic Survey, TX	19,000
TX	Randell Lake Hydrographic Survey, TX	17,000
TX	Somerville Lake Hydrographic Survey, TX	27,000
TX	Toledo Bend Reservoir Hydrographic Survey, TX	130,000
VA	City of Charlottesville	30,000
VA	City of Richmond	40,000
VA	Commonwealth of Virginia VIMS	35,000
WA	Elwha, WA	40,000
WA	Lamprey Barrier, Yakima Basin, WA	50,000
WA	Lamprey Passage, Yakima Basin, WA	100,000
WA	Lamprey Turbulance, Yakima Basin, WA	40,000
WA	PAS - City of Kennewick	25,000

APPROPRIATION TITLE: Investigations, FY 2011

WI	Horicon Marsh Sediment Management Study	100,000
WI	WI River Basin Study for Nutrient Analysis	950,000

ACCOMPLISHMENTS: In fiscal year 2009, the Corps of Engineers spent more than $5.3 million on 179 studies in most States and the pacific and caribbean Islands, and with Federally-recognized Indian tribes. These studies provided technical and planning assistance for a full range of water resources issues. Significant efforts involved studies to assist local communities in restoring urban river environments, and accomplishing wetlands identification and mapping studies. In addition, efforts were undertaken to assist states and local governments in ecosystem restoration, drinking water supply and demand, water quality, and flood damage reduction.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Collection and Study of Basic Data

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center

SUMMARIZED FINANCIAL DATA:	Funding
Estimated Five-Year (FY 2011-2015) Program Cost	$1,750,000
Budget Amount for FY 2011	350,000
Balance to Complete Five-Year Program After FY 2010	1,400,000
Allocation for FY 2010	350,000
Change in FY 2011 from FY 2010	0
Average Annual Allocation for FY 2005-2010	$380,000

SCOPE: This effort provides technical support to engineers and scientists utilizing Computer Aided Design (CAD), Geographic Information Systems (GIS), Building Information Modeling (BIM), and facility management technologies in the planning, design, construction, operation and maintenance of Corps projects. The Center is jointly funded by Military, Civil Works, and other Federal agencies and provides technical support across all sectors. Benefits are accrued by individual USACE districts/projects in the conduct of its Civil Works mission.

In 1992, the former Army Corps of Engineers' Computer Aided Design and Drafting (CADD) Center, located in the Army Engineer Waterways Experiment Station (WES), was expanded to an Army, Navy, Air Force (Tri-Service) center, including the addition of Geographic Information Systems (GIS) technology, by a joint agreement between the Corps, the Naval Facilities Engineering Command, and the Air Force Civil Engineer. Its purpose was to reduce duplication of effort between the three services in the management of CADD/GIS technology for facilities and environmental engineering. Since that time, the Defense Logistics Agency (DLA), the General Services Administration (GSA), USGS, FBI, Smithsonian Institution, National Capital Planning Commission, U.S. Marine Corps, U.S. Coast Guard, National Institute of Building Sciences, National Geospatial-Intelligence Agency (NGA), EPA, and NASA have joined this effort. As a result, this Center is a multi-agency vehicle to set standards, coordinate CADD/GIS systems uses, promote system integration, support centralized acquisition, and provide assistance for the installation, training, operation, and maintenance of CADD/GIS systems within the DoD facilities and environmental communities, including the Corps districts. All Corps districts that use BIM, CADD and GIS in mapping, planning, real estate, design, construction, operations, maintenance, and homeland defense and readiness benefit from the Center's efforts.

In FY08, the Center was re-chartered to focus its activities on the needs of the Tri-services and the Office of the Secretary of Defense (OSD). This change reverses the trend towards adding other federal agencies. The focus continues on CAD and adds Building Information Modeling (BIM) to the Center's activities and developing BIM capabilities that address the Civil Works business domain.

The $350,000 for FY 2011 will support over 2,400 users of BIM/CAD/GIS and facility management technologies for Civil Works projects.

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center (continued)

JUSTIFICATION: All Corps districts use CAD and GIS computer systems for Civil Works engineering, design, mapping, planning, and facility management. Many now use BIM as an engineering and O&M tool. All engineering drafting tables have been replaced with CAD platforms or computer mapping systems and most Corps environmental and natural resource analysis are being performed on GIS platforms. The geospatial data standard efforts of the Center were coordinated with the American National Institute of Standards to develop a National GIS Standard which was approved in November 2001 and includes civil works and homeland defense features. Standards and productivity enhancement tools developed by the Center are used for both in-house and contractor produced drawings, maps and analyses, which assure that all Corps offices have the ability to exchange their work among themselves and with others, including the private sector. The Center is actively coordinating its CAD standards 3.1. with the National Institute of Building Sciences and has created a National CAD Standard, thus reducing the redundancy with the private sector and reducing cost for both government and the private sector. In 2006, the Center began coordination and developmental support for the US National BIM Standard. The BIM standard is addresses the latest building information model technology within the US building and construction industry. The Center ensures that the Corps obtains the maximum return on its investment in BIM, CAD, and GIS by coordinating development efforts and distributing end products to Corps offices. The BIM, CAD, and GIS systems at field offices can achieve maximum productivity when they take advantage of the economies of scale offered by sharing the development and use of common data standards, procedures, and applications. This sharing is accelerated through a concerted effort by the Center, working with various field working groups, to draw from field expertise and dissemination of this knowledge in the form of lessons learned and standards to benefit all Corps users. Comprehensive data standards supported by the Center permit government and industry users to produce equivalent designs, maps and analysis on a variety of computer systems using commercial off-the-shelf BIM, CAD, and GIS software.

PLANNED ACCOMPLISHMENTS IN FY 2011

1. Develop a basic level of data requirements for BIM models that meet the needs of the tri-service installations for pre-defined purposes. The purposes may include: O&M work order management, as-build archival needs, facility management, and GIS-based decision making tools.

Publish data in a format compliant with existing data standards (SDSFIE, OSD data requirements, U.S. National BIM Standard)

2. The USACE BIM RoadMap. The RoadMap will be revised to reflect changes in BIM Technology. Additions will include Instructions to A-Es, Contract Language updates, and O&M data requirements.

3. Maintenance of AEC CAD Standard. The objectives for FY10 are: (1) Continue development of the A/E/C CAD Standard to incorporate changes in CAD technology, modifications to the U.S. National CAD Standard, and needs of field users; (2) Update DGNLibrary files, border files, and template drawings to comply with R4.0 of the A/E/C CAD Standard; (3) Update/revise A/E/C CAD Standard database for NetSPEX.

4. Develop and implement CW SDSFIE adaptation process.

5. Publish additional CW data models for the SDSFIE.

6. Maintain and enhance SDSFIE website.

7. Submit CW portion of SDSFIE to DoD geospatial standards body.

8. Develop a correlation of SDSFIE, COBIE, and Real Property requirements to meet the needs of the installations for facility management and GIS analysis.Publish data in a format compliant with existing data standards (SDSFIE, OSD data requirements, U.S. National BIM Standard).

9. Facility Management BIM OSD, COBIE, SDSFIE Data Interoperability. The objectives are: Develop a correlation of SDSFIE, COBIE, and Real Property requirements to meet the needs of the installations for facility management and GIS analysis. Publish data in a format compliant with existing data standards (SDSFIE, OSD data requirements, U.S. National BIM Standard) Define BIM/GIS interoperability requirements and features from the Real Property Inventory Requirements (RIPR), Real Property Unique Identifier, (RPUID), and Site Unique Identifier in relation to OSD Reporting Requirements.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Automated Information Systems Support - Tri-Service CADD/GIS Technology Center (continued)

ACCOMPLISHMENTS IN FY 2010:

1. Release 4.0 of the A/E/C CAD Standard (both document and software tools) was released via the web. The A/E/C CAD Standard will continue to incorporate Building Information Modeling Standard (BIM) requirements. The FY09 Tri-service corporate dataset for BIM applications was updated and released via the web. The A/E/C CAD Standards content was revised to make it compatible with the latest released version of the National CAD Standard and National BIM Standard. BIM User Workshops and BIM Managers classes were conducted for Civil Works districts and a Autodesk version of the class was developed and conducted.

2. The CAD Generic Detail Library was updated and functionality of the web interface was improved through new controller software.

3. The GIS Spatial Data Standard for Facilities, Infrastructure, and Environment (SDSFIE) Release 3.0 was coordinated with Services and published.

4. A proof-of-concept to USACE for consideration as a BIM deliverable requirement within USACE contracting requirements was completed. An Instructional Manual for assembling .pdf files for input to web-based site for ACSIM use.

5. BIM Contract language originally released in FY08 was updated to address specific data requirement for all BIM models.

6. The Center continued its development of BIM expertise. The BIM Road Map and Implementation Guide was updated and released.

7. The Center continued its deployment role for the collaborative engineering tool ProjectWise Deployment of ProjectWise at Transatlantic Programs Center, GRD, and AED was completed. Release of the ProjectWise PCM 3.0 was also delivered.

8. SDSFIE web site was enhanced to provide additional capabilities and meet user needs.

9. ProjectWise demonstration project for the management of Real Estate documents was completed for both Civil Works and Military districts.

10. BIM to GIS demonstration project based on the ESRI vendor tool set was demonstrated. The focus was on interior equipment and furnishing.

11. Completed additional SDSFIE data modeling activities including Dam and water control data modeling.

2. Collection and Study of Basic Data

   c. Other Programs

      (6) Coastal Field Data Collection

SCOPE: The Coastal Field Data Collection program systematically measures, analyzes, and assembles the data Corps field offices use to accomplish the Corps mission in coastal navigation and storm damage reduction. Some of these data are nationwide or regional supporting many projects at once. No single project would have the mandate or funding to develop and maintain these critical high-quality, extended datasets.

SUMMARIZED FINANCIAL DATA:

Estimated Five Year (FY 2011-2015) Program Cost -	$ 9,400,000
Budget Amount for FY 2011	1,400,000
Allocation for FY 2010	4,483,000
Change in FY 2011 from FY 2010	-3,083,000
Average Annual Allocation for FY 2007 - 2011	$ 4,264,400

AUTHORITY: The basic authority for the Coastal Field Data Collection Program is 33 USC 426a which originated with the River and Harbor Act of 1945, which originated in the River and Harbor Act of 1930. The latest Engineering Regulation governing the program is ER 1110-2-1406 dated 1990.

JUSTIFICATION: Inaccurate and insufficient observation data results in project design errors for coastal navigation and storm damage reduction. For example, wave data with a 20% error that are used to design a coastal rock structure will yield a 70% error in the stone size used to build the structure. Oversized stone makes initial construction costs much higher and undersized stone results in early failure and higher than necessary life-cycle repair costs. Similarly, a 5-10 degree error in wave direction can result in an error, or even reversal, in predicted sediment transport, compromising the success of a regional sediment management strategy. Cost-effective mission accomplishment requires accurate and complete data. Long-term data are required to determine climatic changes that may impact Corps' projects. Lack of available high-quality wave data was highlighted as a critical issue by the Coastal Working Group of the Hydraulics, Hydrology and Coastal community of Practice in a Corps-wide survey on data requirements in 2009.

The Coastal Field Data Collection Program provides required baseline data for all coastal projects and operations. The data is developed, maintained, and applied through the following activities: (1) National coastal wave climates for project design, (2) The Field Research Facility, a coastal observatory for long-term coastal measurements to improve our modeling and project design capabilities, and (3) through a new initiative to use data to quantify the performance of the Corps Coastal Projects. In addition, several complementary activities have benefitted by congressional support, including (4) Measurements of Typhoon winds, waves and storm surges in island and reef environments, which provides data to (5) the Surge Wave Island Modeling Studies (SWIMS) effort to model island storm surges, and (6) the Wave Data Study advances critical modeling of beach and shoreline changes through field application along the mid-Atlantic coast. If not funded in FY11, these latter activities have operational assets that would require program funds to shut down. In order to acknowledge these added program activities, if funded, their FY10 accomplishments and FY11 plans are identified below.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. National Coastal Wave Climates. The objective of the *National Coastal Wave Climates* activity is to provide high-quality coastal wave observations and wave hindcast model estimates, wave analyses products and decision tools nationwide. The focus is to integrate measurements with model results so that USACE offices have access to all available wave information (real-time observations, model hindcasts, and long-term archives) to perform their mission. Where sufficient wave observation data are not available, high quality wave estimates will be hindcast using high quality wind fields and the latest wave modeling technology. At least 20 years of wave data for all US coasts and the Great Lakes are required. Hindcast datasets include directional wave spectra (by-product is the wave direction), and are computed hourly for locations every few miles along the coast. Because of this coverage, these datasets are routinely used by the Corps, the coastal engineering community, and the public for coastal studies. The long-term hindcast wave data are accessible through a website which receives over 600 monthly requests for data downloads (http://frf.usace.army.mil/wis/). Measured datasets are typically limited in length; often don't include wave direction, and are therefore inadequate for estimating extreme wave conditions and for sediment transport prediction. However, where available, gauge observations are important to both confirm and validate the hindcast/model data, and for quantifying actual conditions. Under this activity, wave data users will be able to access either hindcast or observed wave data transparently and will be able to create powerful analysis products and tools for climate and extreme event planning and decision making using each type of data, or both types.

PROPOSED ACTIVITIES FOR FY 2011:

- Add much requested Lake Michigan hindcast to wave hindcast website
- Extend Pacific hindcast temporal coverage to the present
- Re-evaluate Atlantic and Gulf of Mexico hindcast for updating to present
- Develop new analysis products which use both hindcast and observed data. This will improve accuracy and confidence in decisions based on wave computations.

ACCOMPLISHMENTS IN FY 2010:

- Merge Coastal Data Information Program (CDIP) and NOAA's National Data Buoy Center (NDBC) observations with hindcast wave database
- Pacific 10-yr basin and 5-yr regional hindcasts evaluated and released.
- Wave hindcast website revised/updated to include Google Earth option for access.
- Alaska 20-yr hindcast added to web site.
- Wave climate products developed using hindcast and observed data reviewed and released to website
- Add 5-yr Pacific regional wind fields to wind database.

2. Field Research Facility, a long-term Coastal Observatory. Critical to measuring, analyzing and providing useful coastal data products for Corps districts is the collection of long-term, high-resolution data for improving project design and performance. The *Field Research Facility* (FRF) in Duck, North Carolina (http://frf.usace.army.mil/), is a unique real-world coastal facility that collects a comprehensive suite of wave, current, meteorological, bathymetric, and topographic data, typically required, but often unavailable at a Corps project site. The facility is used to: evaluate oceanographic measurement techniques and equipment, collect high-resolution data during storms, conduct large interagency field experiments, and collect spatially and temporally-intensive long-term measurements required to better understand complex coastal processes and coastal climate changes. These data are made available online and in real time to engineers and scientists in the Corps, other agencies (NOAA, NSF, Navy, USCG, USGS, NASA, etc.), universities, and the private sector for researching coastal processes and for developing and verifying numerical models and coastal engineering tools that predict wave environments and sediment movement affecting coastal projects, navigation safety, dredging quantities and project impacts. They are also crucial for evaluating and improving the data products produced by other program sub-items. As a unique coastal observatory, the FRF is a significant Corps contribution to the Integrated Ocean Observing System (IOOS) as specified in the

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

President's Ocean Action Plan and authorized in the Integrated Coastal and Ocean Observation System Act of 2009 (PL No. 111-11). Future activities include continuing an initiative, with NOAA to create an interagency center for testing coastal wave and other oceanographic field instrumentation. In addition the facility is serving as a testbed for evaluating and developing coastal numerical models (many models exist, but few have been rigorously evaluated). Several numerical schemes are now running (SWAN and STWAVE, both wave models) with comparison statistics being made available in real time from the facility's popular website. Additional models and supporting observations will be added.

PROPOSED ACTIVITIES FOR FY 2011:
- Continue long-term data collection program and support the data requirements of the real-time model test bed.
- Couple model evaluation diagnostic system with ADCIRC storm surge modeling efforts for assessment of water level accuracy
- Develop real-time, advanced coastal mapping techniques of dune, beach and nearshore using new remote sensing techniques (radar and topographic LIDAR)
- Use collected storm data to refine the prediction of wave runup and overwash, with application to improved beach modeling.
- Develop conceptual model for the evolution of seabed roughness from underlying geology – which will help explain many Corps project problems where the underlying geology is not uniform along the coast.

ACCOMPLISHMENTS IN FY 2010:
- Continue long-term data collection program and use the ~30+ year record of nearshore waves and morphology observation to for climate signals (storminess, modulation of wave field, etc.)
- Operational demonstration of MORPHOS (Modeling Relevant Physics of Systems for Estimating Risk) morphology module
- Continue development of the real-time modeling testbed including additional cross-shore instruments and surveys required for the MORPHOS morphology model evaluation. Incorporate the STWAVE wave model into the testbed.
- Evaluate the performance characteristics of two acoustic wave and current meters, relative to standard wave observing techniques.
- Collected new storm observations of wave setup and runup, keep variables required to improve inundation and overwash predictions
- Collected real-time seabed observations in order to improve estimates of roughness and to document the development of shore-oblique sandbars.

3. Performance of Shore Protection Projects (New in FY11). The objective of this task is to improve performance of existing shore protection projects through evaluating their performance and delivery of economic and environmental benefits. This data will contribute to the development of performance indicators—an Administration mandate to which the Corps agency is responding. Economic and social data are central to assessment of project performance but traditionally have been a low priority. Projects are evaluated, authorized and constructed based on economic benefits. Data sets which can be used to demonstrate economic benefits achieved by these projects are the key to long term program success. Congress, OMB, Corps' senior leaders, other agencies and those in project areas find this information central to their decision making but difficult to obtain, dated and limited. This effort will have a strong interagency component to maximize the use of existing data and enhance credibility. Non governmental organizations and other interest groups will also be involved to leverage resources and identify needs and sources. Both national and field requirements for tools and techniques for benefit assessment will be included. Information posting will be coordinated with the prototype National Coastal Data Bank. This program will benefit from the hurricane impact assessments done following the Florida hurricanes of 2004, Hurricane Katrina in 2005, and Hurricane Ike in 2008.

PROPOSED ACTIVITIES FOR FY 2011:
- Workshop to develop the study team and approach, and to identify candidate projects to include.
- Develop standardized templates for consistent, ongoing data collection and organization

4. Measurements of Typhoon winds, waves and storm surges in island and reef environments. The objective of the Pacific Islands Land Ocean Typhoon (PILOT) activity is to address specific requirements developed by the Corps' and FEMA's *Islands Task Force*. In response, a unique series of measurements are being made across reefs by the Corps in partnership with the University of Hawaii and the Scripps Institution of Oceanography. Tropical cyclones and hurricanes affect Pacific and Caribbean islands differently than the continental United States. Consequently existing wave and storm surge forecast models, cyclone intensity scales, and design tools for cyclone conditions are inappropriate or unproven for use in the islands. PILOT is collecting quality and timely data required to more accurately document characteristic cyclonic effects in the islands (http://frf.usace.army.mil/pilot/pilot.shtml). The measurements are being made on the Islands of Guam and St.Croix, because of their high likelihood of typhoon/hurricane passage, and in Hawaii. Observations acquired to date suggest that storm waves propagating across island reefs are attenuated far greater than on typical continental beaches and greater than predicted by existing wave transformation models. Moreover, the data also confirm that waves on reefs are extremely sensitive to even small changes in the mean water level. Because wave conditions, even though distantly generated, are affected by local winds, the program is developing in partnership with the University of Hawaii, a technique for observing low-level winds using standard weather observation radars. PILOT takes advantage of the expertise available in other program activities and collected data support the long-term IOOS data requirements in the islands.

PROPOSED ACTIVITIES FOR FY 2011:

- Continue data collection and analyses in the US Virgin Islands and in the Pacific.
- One field site laboratory will be added to the data collection system. This site will be selected to increase our knowledge of the physics of other near shore island environments.
- Continue the research in the reef characteristics and the development of corresponding friction coefficients
- Processed data will continue to be made available to model developers for the development of the next generation surge and wave models for island environments.
- Web site will continue to be populated with data collected in FY 09 and recent papers utilizing this data.

ACCOMPLISHMENTS IN FY 2010:

- Continued monitoring in the US Virgin Islands, and in the Pacific.
- In cooperation with the US Air Force Weather Command, archive NEXRAD radar data at the Guam-Anderson AFB.
- Web site developed to enable easy dissemination of data, findings and research papers.
- All data collected up to and including FY 08 will be processed and posted on Web site.
- Initiated research in the reef characteristics and the development of corresponding friction coefficients

5. Surge Wave Island Modeling Studies (SWIMS). The objective of this activity is to develop numerical models and techniques appropriate for typhoon surge simulation and forecast in the islands. Typically, islands are mountainous with narrow coasts and a reef shield that offers protection from storm waves. However, typhoons can greatly raise water levels and waves resulting in coastal inundation, damage, and loss of life. Methodologies for analyzing hurricane/typhoon waves and their interaction with island coasts, including fringing coral reefs, have not received attention commensurate with the importance and complexity of the processes. A next generation island coastal storm surge and wave model system will be developed using data collected under the PILOT sub-item (http://chl.erdc.usace.army.mil/swims). The model system will also be applied and evaluated for longer, irregular reaches of coastline, using coastal inundation data on Kauai after Hurricane Iniki and with data from physical hydraulic model tests. Once developed, the modeling methodology will be applied initially to selected Hawaiian Island sites with exceptional importance for coastal inundation planning.

PROPOSED ACTIVITIES FOR FY 2011:

- Additional island databases will be established.
- User training and model system documentation will be performed.
- System development will continue to improve model system fidelity and efficiency.
- Reef characterization parameters will be developed to describe unique reef features to input to models.
- Infragravity wave parameterizations will be developed to efficiently represent inundation due to long waves.

ACCOMPLISHMENTS IN FY 2010:

- Two-dimensional model components were validated with PILOT field data and physical model data (including unique data collected in FY08 & FY09 at ERDC laboratory facilities) and incorporated into an upgraded modeling system.
- Additional physical model tests were performed, including reef channels that influence water levels and inundation, to validate models.
- A range of potential storms were run for Oahu and incorporated into a database for emergency planning.
- Hands-on training of tool application was provided to Corps Districts and local emergency managers, and continued coordination with these users.
- Modeling in the Caribbean also began, as PILOT data became available.

6. Wave Data Study – The nation's ability to plan for and weather severe storm surges and waves that impact shores of the country is directly linked to our capacity to understand and predict those forces and the resultant inundation, erosion, and landscape changes. That same capacity is needed to rigorously and accurately assess the risk of future impacts at a regional system-scale. The Corps of Engineers has developed a modeling capability, through the MORPHOS (Modeling Relevant Physics of Systems for Estimating Risk) project, to simulate the coastal impacts caused by extreme storms. Furtherance of the MORPHOS model approach to better understand impacts through field application in different environments will be a large step forward. The Delaware coast offers a unique combination of attributes for this application. It is large enough to be a system-scale region, but not so large that model development would be diverted to simply dealing with its size. It contains all the necessary coastal features and is impacted by northeasters as well as hurricanes. In addition, it has a robust program of coastal response data collection and a large archive of historical measurements and information for use in calibrating, refining, and validating the modeling technology. This effort continues a unique effort which began following the devastating hurricanes of 2004 & 2005 when it was recognized that available data and models were inadequate to predict the impacts that occurred.

PROPOSED ACTIVITIES FOR FY 2011:

- Operational prototype MORPHOS model running for critical locations along the Delaware coastline
- Assess operational performance of and conduct model validation of MORPHOS using collected data sets
- Link MORPHOS model with IOOS real-time and available archive data along the Delaware coast

ACCOMPLISHMENTS IN FY 2010:

- Complete validation of profile response model with Delaware beach profile data.
- Set up the 2-dimensional horizontal (2DH) depth-integrated model domain for Delaware coast.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

PROGRAM TOTALS

PROGRAM ITEM	FY11
1. National Coastal Wave Climates	$ 350,000
2. Field Research Facility, a Long-term Coastal Observatory	985,000
3. Performance of Shore Protection Projects	50,000
4. Pacific Islands Land Ocean Typhoon (PILOT) experiment	5,000
5. Surge Wave Island Modeling Studies (SWIMS)	5,000
6. Wave Data Study	5,000
Total	$1,400,000

APPROPRIATION TITLE: Investigations, FY 2011

Collection and Study of Basic Data

Environmental Data Studies

JUSTIFICATION: The Environmental Data Studies Program budget amount is $75,000. Funds will be used to continue development of an Environmental Database System, to support collection and sharing of environmental information and to support the development of performance measures for the Environmental Business Program.

ACCOMPLISHMENTS FOR FISCAL YEAR 2010: Refine database specifications, develop definitions, and. test a working prototype.

OBJECTIVES FOR FISCAL YEAR 2011: Develop Beta version for wide scale testing and work on GIS component.

2. Collections and Study of Basic Data

c. Other Programs

(11) Flood Damage Data Program

SCOPE: The Flood Damage Data Program is required to facilitate the collection and maintenance of basic flood damage data to support Corps field offices in accomplishment of flood damage reduction studies. Planning and evaluation of flood damage reduction projects requires knowledge of actual damages caused to various types of properties. The relationships between flood depth, flood duration and velocity, value and type of property, and the amount of damage are essential to making accurate and supportable estimates of the value of projects. The distributions of damages resulting from the various factors involved are needed for the risk analysis framework adopted for water resource studies. Damage data are obtained in rare instances when a damaging event occurs and funded studies are underway. However, in most instances when flooding occurs there are no current studies in the area or other funding mechanism to collect the requisite data to be used in future analysis or to report and accurately record the damages incurred and account for the effect of the factors that caused the damages. Previously no centralized flood damage data source existed which retrieved basic data for research efforts and for specific project studies. The major purpose of the program is to improve the technical quality and accuracy of flood damage data, to improve the understanding of the interrelationships of the characteristics of flooding on property damage, to improve the formulation of flood damage reduction projects, and reduce the costs of feasibility studies. Coastal damage data collection will be needed to adapt to new coastal protection policies and to respond to concerns from the Office of the Assistant Secretary of the Army (Civil Works) in the review of recent coastal protection projects. The activities of the program are to: (1) conduct actual flood damage surveys following flood events for riverine and coastal events; (2) develop, maintain, and improve the economic database for flood damage reduction projects; (3) calculate flood depth-damage functions for riverine and coastal flooding based on actual damage data; (4) collect data and derive damage relationships for roads, public building and facilities, and other public costs of flooding; (5) develop and maintain a floodplain inventory application that would be used to apply flood damage estimation models to feasibility, reconnaissance, and continuing authority studies; and (6) provide information to communities of hazard mitigation plans and grant applications.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Costs	$1,420,000
Budget Amount for FY 2011	$220,000
Balance to Complete Five-Year Program after FY 2011	$1,200,000
Allocation for FY 2010	$188,000
Change in FY 2011 from FY 2010	$32,000
Average Annual Allocation for FY 2006-2010	$218,000

2

APPROPRIATION TITLE: Investigations, FY 2011

JUSTIFICATION: The $220,000 budgeted in FY 2011 for Flood Damage Data would be used to update and maintain data collection survey forms and data collection techniques, to collect post-flood damage data, to employ the flood damage database to estimate National models where regional or local flood characteristics can be specified to estimate flood damage relationships, to update and maintain a geospatial computer application for floodplain inventory data. A model for estimating residential and nonresidential structure values would be field tested and expanded. Funds would also be used to facilitate the collaboration in collecting and sharing of flood damage data within the Corps and between other agencies. The results of damage function calculations would be particularly useful to communities applying for FEMA mitigation grants. Generic damage functions from the Flood Damage Data Collection Program are now imbedded in the FEMA Benefit/Cost Analysis Program for common use for grant applications. Funds would also be used to develop procedures for estimating public costs of flooding.

2. Collections and Study of Basic Data

c. Other Programs

(11) Flood Damage Data Program (continued)

ACCOMPLISHMENTS:

In FY 2010
1. Analysis of data collected for damages to nonresidential properties in the upper Midwest.
2. Computed cost functions for cleanup.
3. Developed new procedures for valuation and depreciation of residential and nonresidential structure values.
4. Reprogrammed IWR-GeoFIT to accommodate new valuation procedures, GeoFIT user comments, and new versions of Arc-GIS.
5. Provided technical support for IWR-GeoFIT.
6. Released standardized damage functions and content damage relationships for nonresidential property.
7. Provided technical support for flood damage analysis.

Planned for FY 2011
1. Conduct post-flood damage collection for damages public properties, including roads and bridges.
2. Provide valuation procedures for nonresidential structure categories.
3. Provide updates and enhancement to IWR-GeoFIT.
4. Provide technical support for IWR-GeoFIT.
5. Release standardized values for public costs of flooding.
7. Provide standardized procedure for benefits of avoiding temporary relocation.
8. Provide technical support for flood damage analysis.

APPROPRIATION TITLE: Investigations, FY 2011

Collection and Study of Basic Data

Flood Plain Management Services

SCOPE: This Corps of Engineers program stems from Section 206 of the 1960 Flood Control Act (PL 86 645), as amended, which authorizes the Secretary of the Army to compile and disseminate data on floods and flood damage potential and to provide guidance in their use in flood related planning to State and local agencies. This information and guidance has long supported planning and implementing actions that reduce the flood hazard through wise use of flood plains. The lessons of the gulf coast disasters and the concerns about the Sacramento levees have heightened concern and interest in increasing our focus on flood risk and developing more robust outreach the better to communicate the risks we face in flood prone areas. As we better understand the risks we are facing, the need for providing accurate and timely flood hazard information, interpretation, and guidance for coping with these risks and conveying the nature of flood hazards and to foster public understanding of the options for dealing with flood hazards are severely taxing our available financial resources. This program supports Executive Order 11988 as the federal governments' guidelines for development and support of states in the flood plain. This program is one of the few ways that small communities can access the expertise of the Corps. The Corps also participates with the Federal Emergency Management Agency and local governments in the conduct of pre disaster hurricane evacuation and preparedness studies for mobilizing local community responsiveness to natural disasters in high hazard coastal areas.

SUMMARIZED FINANCIAL DATA:

Budget Amount for FY 2011	$8,000,000
Allocation for FY 2010	$8,059,000
Change in FY 2010 from FY 2009	$-59,000

JUSTIFICATION: The funds budgeted for FY 2011 will enable the Corps to provide needed information to states and local communities in their application of flood plain management measures. It will provide them site-specific flood and flood plain data and assistance; assist with efforts to identify flood hazards in smaller communities under growth pressures; facilitate special studies that concentrate on the prevention of future flood damages, giving increased emphasis to the application of non-structural measures; and enable critical pre-disaster hurricane evacuation and preparedness studies for states and counties along the Atlantic and Pacific Oceans, the Gulf of Mexico, and US islands in the Caribbean and Pacific. Seventy percent of the program funds are utilized to first fund the Congressional Adds and then fund the Floodplain Management Services national subprograms. The balance of this 70% of the program funds are then distributed across the country for each Corps Major Subordinate Command (MSC) to assess, prioritize and fund the study needs of the MSC region. Of the amount requested, 30% is distributed in such a manner to ensure that each Corps district office has the capability to respond to requests for information in a timely manner. In FY 2009, $2.45 million was expended for this effort.

APPROPRIATION TITLE: Investigations, FY 2011

In addition to the base program and contingent upon the funding, the studies listed below could be completed in FY 2011.

State	Study	Completion Amount (Dollars)
AZ	SS - Hopi Nation Floodplain Mapping, AZ	100,000
AZ	SS - Tohono O'odham Nationwide Floodplain Mapping, AZ	250,000
AZ	SS-Tohono O'odham Nation, Gu Vo Wash, AZ	95,000
CA	San Mateo County, CA Levee Survey	25,000
CA	SS - Anaverde Creek Floodplain Delineation, CA	100,000
CA	SS - City of Los Angeles, CA Baldwin Hills Floodplain Study	100,000
FL	Citrus County	40,000
FL	FL Dept if Agriculture	20,000
FL	FL Trust for Public Lands	20,000
GA	GA Hurricane Evacuation Study	50,000
IA	Des Moines River Regulated Frequency Curves	80,000
IA	Evaluation of Flooding Scenarios	120,000
IA	Hydrologic Enforcement of State-wide LiDAR	560,000
IA	Iowa Reservoirs Dam Safety Study, IA	65,000
ID	SS Boulder Creek Donnelly, ID	35,000
ID	SS Monroe Creek, vicinity of Weiser, ID	25,000
ID	SS Slaughter House Gulch, Blaine Co., ID	75,000
ID	SS Warm Springs Creek vic of Challis, ID	40,000
ID	SS Warm Springs Creek vic of Ketchum, ID	40,000
IL	IL Levees Evaluation Support	250,000
LA	Tunica GIS	300,000
LA	Bayou St. John GIS	300,000
LA	City of Gretna GIS	200,000
LA	New Orleans Hurricane Evacuation Update	300,000
LA	SE LA Hurricane Evacuation Update	250,000
MN	Mississippi River Regional Q-F	270,000

APPROPRIATION TITLE: Investigations, FY 2011

MO	City of Orrick/Ray County	40,000
MO	Lincoln County, MO, Flood Hazard Study	150,000
MS	Gulfport Harbor Navigation Channel	50,000
MT	Nashua	80,000
NC	Gooch's Mill Dam Removal	35,000
NC	HEC-RAS Class	15,000
NE	Platte River (Columbus to Clarks)	75,000
OR	SS City of John Day	170,000
OR	SS Crooked River FIS (City of Prineville)	150,000
OR	SS Juniper Canyon FIS (City of Prineville)	145,000
TX	Elm Creek and Tribs, Abilene, TX	115,000
VA	VA DOT Storm Drain Survey	25,000
VI	US VI HES Behavior Study	120,000
WA	Hydrologic frequency analysis	50,000
WA	Modernization Conversion of data and data retrieval system development	85,000
WA	Sany Juan Islands FPMS	46,000
WA	SS Lind Coulee, vicinity of Lind, WA	35,000
WA	SS McCoy Creek, vicinity of Oakesdale, WA	105,000
WA	SS Wahkiakum Co FIS #1 (Gray's River)	165,000
WA	SS Wahkiakum Co FIS #2 (Elochoman River)	140,000
WA	SS Wahkiakum Co FIS #3 (Wilson Creek)	140,000
WA	SS Wahkiakum Co FIS #4 (Skamokawa Creek)	140,000

ACCOMPLISHMENTS: In FY 2009, the Corps was active in 73 special studies in response to requests from Federal and non-Federal agencies, communities, Indian Tribes and individuals for flood-related information, interpretation, and guidance. The requests continue to number into the tens of thousands and involve property valued at billions of dollars. The Corps participated in pre-disaster hurricane evacuation and preparedness studies for high-hazard areas in coastal states and territories; provided support for updating and improving mathematical models of flood plain hydrology and hydraulics; developed training programs in flood plain hydrology and hydraulics; and prepared flood-proofing studies.

APPROPRIATION TITLE: Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies

SCOPE: The scope of activities under this item is determined annually based on the requests from USACE Commands and Laboratories to meet high-priority needs. These items are not covered under regular Civil Works GI and O&M funding programs. Major activities to be undertaken in the program generally include the collection of basic hydrologic data and the studies of these data for major storm events or certain special hydrologic processes. The information to be derived from this program will improve hydrologic engineering techniques for the planning, design, construction, and operation of water resources projects. The program consists of four sub-items: Storm Studies, General Hydrologic Studies, Sedimentation Studies, and Stream Flow and Rainfall Data.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$ 1,250,000
Budget Amount for FY 2011	250,000
Balance to Complete Five-Year Program after FY 2011	1,000,000
Allocation for FY 2010	211,000
Change in FY 2011 from FY 2010	39,000
Average Annual Allocation for FY 2006-2010	249,200

JUSTIFICATION:

1. Storm Studies: The Storm Studies Program is a continuing investigation of major storms for the purpose of accumulating comprehensive rainfall data. These data are used to refine the regional hydrometeorological information throughout the nation. The up-to-date hydrometeorological information is essential for design of new projects as well as for safety assessment of existing projects. We have substantial need for hydrologic data for initiation and completion of water resources studies. These data are required in the evaluation of flood-producing potentials of river basins, and constitute the major portion of the basic data used in probable maximum precipitation determinations. Funds in the amount of $50,000 will be used in FY 2011 to work on several storm studies.

2. General Hydrologic Studies: Studies under this sub-item include needed improvement in the analysis of rainfall-runoff relationships, flood frequency, snowmelt studies, hydrograph development and routing at selected watersheds, model calibrations in urban areas, analyses of past floods, methods for the hydraulic analysis of non-gaged streams, and other studies of related hydrologic nature. Also included are planned upgrades to the internal Corps system of accounting for gages used largely both of control of water resources projects and also for studies of major hydrologic events. Studies of new techniques to improve the accuracy of hydrologic modeling require additional resources. New radar applications in rainfall-runoff forecast is an ongoing need. Funds in the amount of $100,000 in FY 2011 will be used to continue this sub-item at a level to insure proper and orderly progress.

2. Collection and Study of Basic Data

c. Other Programs

(4) Hydrologic Studies (continued)

3. Sedimentation Studies: The program is a continuing effort in which funds are used for conducting non-project sedimentation studies, and for the Corps share of an interagency sediment investigation program. The sedimentation studies include: promoting and supporting the standardization and development of equipment, criteria and methodology for the collection, analysis of suspended and bedload sediment characteristics of natural streams; and laboratory studies. An amount of $50,000 in FY 2011 will be used to continue the interagency sediment investigation program.

4. Streamflow and Rainfall Data: This is a continuing program in which funds are used for installation and operation of hydrometeorology gages of non-project nature that are needed by the Corps in addition to the stations in the cooperative programs conducted by the U.S. Geological Survey and the National Weather Service for the Corps. Additionally, gages are needed to observe historical high water marks for validation of hydrologic models. An amount of $50,000 in FY 2011 will be used to continue the establishment and operation of these special-purpose gages, and to determine historical flooding in urban sites.

ACCOMPLISHMMENTS

1. Storm Studies: During the period, the Corps has helped lead an effort to develop Extreme Storm Data to assist both the Corps and other federal agencies to meet design criteria for federal projects. Corps offices have gathered data on several major storms, reviewed the scope and interim results of ongoing studies by NWS on development of standard project and probable maximum storms at various basins throughout the United States and territories.

2. General Hydrologic Studies: Examples of some of the more important studies accomplished under this program are: determination of rainfall-runoff relationship in urban areas; general hydraulic model calibration; snow cover surveys; and adaptation of hydrologic programs to CADD equipment. Work was completed on the regional frequency studies for Hawaii and data collection was initiated for the State of California. Significant work was also accomplished in assessing the effects of debris in hydrological modeling, particularly in the fire-prone western states.

3. Sedimentation Studies: All of the funds allotted to this sub-item assisted in financing the Corps share of the cooperative Interagency Sedimentation Project at the Hydraulics Laboratory, Waterways Experiment Station.

4. Streamflow and Rainfall Data: Stations funded under this sub-item are generally established and operated several years prior to anticipated authorization for project-type activities, in order to provide a background of observed data on which to base the planning and design of projects. Progress continued at these gage sites to collect hydrometeorological data in flood prone areas to document historical flood and calibration of hydrologic models.

COORDINATION: The storm studies are prepared by USACE commands and are reviewed by the National Weather Services in the preparation of probable maximum precipitation estimates for the Corps. The Interagency Sedimentation Project is conducted cooperatively, and jointly funded, by eight Federal agencies. Information concerning streamflow and rainfall data collection by the Corps under this activity is made available to the U.S. Geological Survey and the National Weather Service.

APPROPRIATION TITLE: Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other Programs

(3) International Waters Studies

SCOPE: The Boundary Waters Treaty of 1909, the Niagara River Treaty of 1950, the Columbia River Treaty of 1961, and other less formal agreements between the Governments of the United States and Canada are concerned with the regulation, control, and use of boundary waters. Under the Boundary Waters Treaty of 1909, the International Joint Commission (IJC) was established and empowered to establish local boards, which conduct investigations and assure adherence to orders of approval pertaining to use of boundary waters issued by the Commission. Corps of Engineers representatives serve on and chair the U.S. Sections of the following IJC Boards: Saint Croix River, Champlain-Richelieu, Lake Champlain, St. Lawrence River, Niagara, Lake Superior, Lake of the Woods, Rainy Lake, Souris-Red Rivers Engineering, Souris River Control, Kootenay Lake, and Osoyoos Lake. Under separate treaties, Corps representatives serve on and chair the U.S. Sections of the Columbia River Treaty Permanent Engineering Board, the Permanent Engineering Board Committee, the Columbia River Treaty Entities, the Columbia River Treaty Operating Committee, the International Niagara Committee, and the International Lake Memphremagog Board. These Boards and Committees hold joint meetings, review report drafts and correspondence, make field inspections, obtain, collect, and analyze hydrologic and hydraulic data, and report their findings to the establishing parties. The degree of study activity varies depending upon the requirements of the Commission or Treaty under which they were established. These efforts assure better control, use, and orderly development of the jointly controlled water resources, and are of importance in attempting to meet water demands resulting from an expanding economy along the United States-Canadian border. Studies are closely related to the Corps of Engineers' Civil Works program and are summarized in the Assistant Secretary of the Army for Civil Works' Annual Report.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$1,000,000
Budget Amount for FY 2011	200,000
Balance to Complete Five-Year Program after FY 2011	800,000
Allocation for FY 2010	170,000
Change in FY 2011 from FY 2010	30,000
Average Annual Allocation for FY 2006-2010	211,600

JUSTIFICATION:

The FY 2011 amount will fund Corps of Engineers participation in assisting the U.S. Government meet its obligations under provisions of boundary water treaties and other international agreements between the United States and Canada. CELRD provides support for implementation of the Niagara Treaty of 1950 that governs the split of Niagara River Waters between the U. S. and Canada, and between the uses of the waters.

APPROPRIATION TITLE: Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other Programs

(3) International Waters Studies (continued)

Northwestern Division engages in activities associated with implementation of the Columbia River Treaty and the Kootenay Lake and Osoyoos Lake Boards of Control. CENWD, together with Bonneville Power Administration and British Columbia Hydro annually develop the Assured Operating Plan and the Detailed Operating Plan for the Columbia River Treaty storage projects. Funds also are used to support the work of the Columbia River Treaty Permanent Engineering Board, including publication of its annual report to the Governments. North Atlantic Division is engaged in support of the Saint Croix River Board of Control and the Gulf of Maine Council on the Marine Environment. Work in the Saint Croix R. Basin involves retrieval and analysis of water data to assure compliance with IJC rules and annual inspection of dams and fish passage facilities.

The Corps will continue to carry out its multiple responsibilities to the various IJC Boards of Control and to the several Treaty entities, boards and committees. During FY 2011, additional flow data will be obtained and used to update the rating curve used to verify compliance with Niagara Treaty requirements. In addition, pursuant to the October 1999 Plan of Study for Lake Ontario regulation improvements, the IJC established the Lake Ontario-St. Lawrence River Study Board. Investigations are continuing as the fifth year of a 5-year effort. A Plan of Study for evaluating the Lake Superior regulation criteria outflows is being developed for approval by Governments. A basin-wide hydrologic and regulation model will be implemented. Special studies related to international impacts of evaluation of endangered species compliance related to Columbia River Treaty projects will be continued by CENWD. CENAD will continue normal work in support of the Saint Croix Board of Control and the Gulf of Maine Council on the Marine Environment. Discussions are ongoing with the IJC on expansion of the IJC's mission to include environmental objectives, as described in the report entitled "The IJC and the 21st Century". The Corps will be supporting the IJC as it executes the reference from the governments regarding investigating the feasibility of establishing a demonstration watershed board and its implementation of the reference on diversion, consumption and transfer of international waters.

ACCOMPLISHMENTS:

The Corps Division and District commanders and their staffs met all of their many and diverse responsibilities in representing the United States on the previously listed IJC Boards of Control and Treaty entities, boards and committees. The IJC-sponsored special flood damage reduction study of the Red River Basin was closed without completing the full scope of the planned work because of lack of funds from the United States. CEMVD worked with the International Red River Board on the biota assessment for the Devils Lake basin and also supported an interagency modeling and review effort on the Red River of the North mainstem. CELRD has been very active in multiple Great Lakes IJC boards. CENWD continues to coordinate operations of Libby Dam under the 2001 Libby Coordination Agreement. CENWD participated as part of the U.S. Entity to prepare all Columbia River Treaty required Assured Operating Plans (AOP) and resultant Determinations of Downstream Power Benefits (DDPB). The U.S. Entity finalized the annual Detailed Operating Plan (DOP) that may produce results more advantageous to both countries for the current operating year.

APPROPRIATION TITLE: Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other Programs

(2) Precipitation Studies (National Weather Service)

SCOPE: This is the Hydrometeorological Studies Program conducted for the Corps of Engineers by the National Weather Service (NWS). The Corps transfers funds to NWS who performs analyses of storm rainfall and other meteorological data required to develop hydrologic criteria for use by the Corps in planning, design and water control management of flood control and water resources development projects, and in floodplain management studies.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2011-2015) Program Cost	$ 1,125,000
Budget Amount for FY 2011	225,000
Balance to Complete Five-Year Program after FY 2011	900,000
Allocation for FY2010	188,000
Change in FY 2011 from FY2010	37,000
Average Annual Allocation for FY 2006-2010	214,800

JUSTIFICATION: The scientific services provided by the National Weather Service under this program consist of: (1) review of the meteorological aspects of storm data compiled under the Hydrologic Studies Program conducted by the Corps; (2) precipitation depth-duration-frequency estimates for regions and the nation; (4) development of meteorological parameters pertaining to hurricanes, northeasters and other wind phenomena; and (5) other studies necessary to accomplish the Corps mission. Funds in the amount of $225,000 will be required in FY 2011 to continue the program at a level consistent with Corps needs. The entire cost of the Corps hydrometeorological studies program is funded under this budget item.

With the technology and systems for updating precipitation frequency demonstrated, we now stand ready to update precipitation frequency estimates for the rest of the U.S. and its dependencies. With expected funding of $225K, efforts in FY 2011 will be to continue the update and revision of the precipitation frequency estimates for the portion of California not already included in NOAA Atlas 14 Volume 1 and continue studies for the U.S. Pacific Islands, Southeastern states, Midwestern states, and Alaska. Additionally, the NWS will be producing areal reduction factors for the U.S. and maintains the Precipitation Frequency Data Server web portal and prepares an annual report on nationwide flooding.

ACCOMPLISHMENTS: With limited funding of $225,000 in FY10, the NWS completed the update of precipitation frequency estimates for the State of Hawaii and initiated updates and revision of precipitation frequency estimates for the State of California, U.S. Pacific Islands, Southeastern states, Midwestern states, and Alaska Also, the Precipitation Frequency Data Server (PFDS) web portal was maintained with high availability. PFDS serviced over 50,000 requests for precipitation frequency estimates in FY08. The annual report on nationwide flooding and associated assessment of damages was prepared and delivered.

COORDINATION: This program is fully coordinated with the National Weather Service, Office of Hydrologic Development. For the precipitation-frequency study of the Ohio River basin region, the Corps assisted the NWS to obtain significant cost-sharing from the states in the region. The Corps will attempt to obtain cost sharing from the states and other federal agencies for the remaining states.

APPROPRIATION TITLE: General Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other Programs

(8) Remote Sensing Systems Support

This item supports the overall technology transfer requirement of the Corps Civil Works Program for Remote Sensing systems, which is the responsibility of the Engineer Research and Development Center (ERDC), through its Remote Sensing/Geographical Information Systems (GIS) Center of Expertise, Located in Hanover, New Hampshire.

SUMMARIZED FINANCIAL DATA	
Estimated Five-Year (FY2011-2015) Program Cost	$1,500,000
Budget Amount for FY 2011	$150,000
Balance to Complete Five-Year Program after FY2011	$1,200,000
Appropriation for FY 2010	$126,000
Increase of FY 2011 from FY 2010	24,000

JUSTIFICATION:

The Remote Sensing/GIS Center is the Corps' Center of Expertise for Civil Works Remote Sensing and GIS technologies, providing mission essential support as part of the USACE 2012 organization. Through centralized management of this function, the Center provides cost-effective support through technology transfer and applications development for Corps mission responsibilities in all business practice areas: navigation, flood and coastal storm damage reduction, hydropower, regulatory, environment, emergency management, recreation, water supply, and work for others. An enterprise GIS approach is an essential component of this support. Continuing interaction with other researchers and practitioners throughout the Corps, government, the private sector, and academia assures that state-of-the-art and state-of-the-practice knowledge of evolving trends that are relevant to USACE activities are available for the Corps and that duplication of effort is avoided.

Declines in manpower require working smarter, better, and faster. Contributing to this effort, the Center develops approaches for the integration of data from the disparate sources necessary for system wide land and water resources management including: regional sediment management, regional water management, and ecosystem processes and assessment; basin studies; water control; support to emergency management; and compliance with the attendant environmental regulations and related policies. The Center maintains cognizance of state-of-the-art sensors, data collection, analysis, and storage systems, commercial software, and bridging software that integrates these with operational technologies and delivers them to the Corps' divisions, districts, and other agencies' activities. Technology is transferred through telephone and short, no cost assistance to the field. The existence of the Center ensures that the necessary support can be rapidly directed toward solving operational problems that require specialized expertise. The PROSPECT training program in remote sensing and GIS, managed by Center staff, provides another avenue for the transfer of knowledge to those who are, or soon will be, using these technologies. Training also is conducted in the field through workshops, conferences, and distance learning. White papers, pilot projects, Corps and other publications, including Engineering Letters, Circulars, and Manuals, and the Internet, also are used to transfer procedures and lessons learned to end users.

APPROPRIATION TITLE: General Investigations, FY 2011

PROJECTED ACCOMPLISHMENTS IN FY 2011:

1. As the Center of Expertise, serve as key resource and technology point of contact for the Corps of Engineers for Civil Works remote sensing and GIS.
2. Provide guidance and technical support to the Corps' Geospatial Community of Practice (COP).
3. Support one-stop service requests from Corps districts and divisions.
4. Provide technical support to Corps District offices for the development of implementation plans for Geospatial data.
5. Provide leadership and technical support to strategic and enterprise USACE geospatial initiatives.

ACCOMPLISHMENTS IN FY 2010:

1. As the Center of Expertise, served as key resource and technology point of contact for the Corps of Engineers for Civil Works remote sensing and GIS. The team of geospatial experts at the Remote Sensing/GIS Center provided access to required expertise to meet the needs of USACE personnel with questions about imagery or Geographic Information Systems.
2. Provided guidance and technical support to the Corps' Geospatial Community of Practice (COP) and provided leadership to the remote sensing, hydrology, hydraulics and coastal and emergency sub-COPs. A number of the COPs in USACE have technical issues that are related to the geospatial technologies. The Remote Sensing/GIS Center of Expertise funds staff to participate in the activities of the COPs to assure that appropriate linkage to the geospatial technologies is available.
3. Supported one-stop service requests from Corps districts and divisions. The Remote Sensing/GIS Center provides no cost support to USACE elements having problems that can be solved in less than 3 days.
4. Provided leadership and technical support to strategic and enterprise USACE geospatial initiatives: District and Division E-GIS support; National Levee Database development and execution; Missouri River Restoration Project; Corps Water Management System; Geospatial Operations and Maintenance Business Interlink (gORM) development and implementation; Real Estate Management Information System; National Inventory of Dams; Corps Project Notebook; Emergency Management Remote Sensing, GIS, and Modeling Group; and Hydrology and Hydraulics modeling software development and support team member.
5. Provided technical support to Corps District offices for the development of implementation plans for Geospatial data management including development of enterprise of geospatial data approaches. Conducted frequent geospatial technology web-seminars for Corps offices. This supports includes discussions with district personnel concerning current and desired approaches, consideration of what is occurring in all divisions in the district, and enterprise issues.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Collection and Study of Basic Data

Scientific and Technical Information Centers

SCOPE:

Five information analysis centers (coastal engineering, cold regions engineering, concrete technology, hydraulic engineering, and soil mechanics) located at the U. S. Army Engineer Research and Development Center provide the major interface between the Corps of Engineers and the public and private sectors to gather and disseminate information as required by PL 99-802, Federal Technology Transfer Act of 1986. The function of each center is to acquire, examine, evaluate, summarize, and disseminate newly published scientific and technical information generated within the Corps of Engineers and other activities in the U.S. and abroad.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$400,000
Budget Amount for FY 2011	$50,000
Balance to Complete Five-Year Program After FY 2011	$300,000
Allocation for FY 2010	$43,000
Change in FY 2011 from FY 2010	7,000
Average Annual Allocation for FY 2007-2011	$47,000

JUSTIFICATION:

Public Law 99-802, Federal Technology Transfer Act of 1986, requires technology transfer from Federal agencies to the private sector. In addition, both the Department of Defense and the Department of the Army have objectives of supporting the information needs of engineers and scientists and eliminating unnecessary duplication of R&D. The specified information centers, supported by their host laboratories, critically evaluate and summarize the technical validity and merits of published and unpublished research and technical publications on design, construction, or other technology utilization. User communities have been well established and distribution lists for technology transfer are continuously updated. Electronic media including the World Wide Web are used where appropriate. The effectiveness of activities and services is evaluated on a continuing basis, and technology transfer products and methodology are revised when appropriate. Priority for services will be given to deployed troops, Corps of Engineers staff, and other government personnel.

These centers are a major technology transfer resource between the public, the US scientific and engineering community, and academia for results of over 75 years of research results conducted by the ERDC laboratories in the fields of soil mechanics and foundation engineering, cold regions engineering, concrete technology, hydraulic engineering, and coastal engineering. Each center is supported by multi-disciplinary technical staff and has a comprehensive library of materials that have been published over the years. In a typical year, each Center responds to hundreds of information requests on subjects within its purview. These services are free to the users. In addition, services such as literature research, information synthesis, publication location, research reviews, and methodology comparisons on subjects of mutual interest to ERDC laboratories and other interested parties are available on a cost-reimbursable basis.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Collection and Study of Basic Data

Scientific and Technical Information Centers (Continued)

FY 2011 Proposed Activities:

The Corps makes wide use of the Internet for technology transfer. The Internet is widely accessible by both the public and private sectors and provides rapid transfer, at significant cost savings, of technical data, general information on ongoing studies, technical notes, and ultimately technical reports. Through the Information Analysis Centers, several thousand technical inquires are received and addressed annually via various internet and personal contact actions. Inquires are received from Federal, state, and local government activities, universities, private sector engineers and scientists, and citizens. Responses range from furnishing a copy of a report, arranging to speak with an expert, furnishing generalized technical advice, or giving updates on technical developments. The Centers also digitize older ERDC research reports of significant technical value and place them on the internet for ready access by the public.

Information Analysis Centers	FY 2011
Coastal Engineering	$10,000
Cold Regions Engineering	10,000
Concrete Technology	10,000
Hydraulic Engineering	10,000
Soil Mechanics	10,000
	$ 50,000

COORDINATION:

The Information Analysis Centers and their host Laboratories distribute reports, technical notes, computer programs, GIS data, abstracts, information bulletins, and other scientific and technical information to the Defense Technical Information Center (DTIC), Corps libraries, depository libraries, and identified user communities to ensure wide circulation and availability. Homepages are maintained on the Internet for public accessibility. Reports are also available for searching through the Corps Library Program's computer system LS/2000. DTIC publicizes reports through its own DOD database and forwards the reports to the National Technical Information Service (NTIS), Department of Commerce. NTIS places reports into a compendia of Selected Water Resources Abstracts and an annual cumulative edition, with conveniently indexed and cross referenced identification of what is being or has been done in water resources research and related scientific and engineering fields by whom, where, and when.

APPROPRIATION TITLE: General Investigations, FY 2011

2. Collection and Study of Basic Data

c. Other programs

(1) Stream Gaging (U.S. Geological Survey)

SCOPE: The Corps of Engineers cooperates with the U.S. Geological Survey in this effort, and contributes funds for all or part of the cost of the operation and maintenance of about 2,500 stations that are of special importance to the Corps mission. The Corps established this continuing, cooperative program in March 1928, so that streamflow data would be available to meet special needs concerning the Corps water resources responsibilities.

SUMMARIZED FINANCIAL DATA:

Estimated Five-year (FY 2011-2015) Program Cost	$3,000,000
Allocation Requested for FY 2011	600,000
Balance to Complete Five-year Program after FY 2011	2,400,000
Allocation for FY 2010	511,000
Change in FY 2011 from FY 2010	89,000
Average Annual Allocation for FY 2006-2010	575,000

JUSTIFICATION: The Corps of Engineers makes extensive use of streamflow records in the planning, design, construction, and operation of water resources projects. The Basic network of stream gaging stations operated by the Geological Survey under its normal functions without support from the Corps is inadequate to meet all the special needs of the Corps water resource development responsibilities. Accordingly, a cooperative program was established under which funds are transferred to the Survey to cover, partially, the cost of operating specific stations. In the optimum development and management of water resources, it is essential that continuous records of streamflow be maintained at specific sites over a long period of years to provide a reliable measure of water resources available for various uses. This budget item targets the non-project portion of the cooperative program. To continue the operation of stations of special interest to the Corps, an estimated total of $17,600,000 will be required by the U.S. Geological Survey during FY 2011, exclusive of funds received from other cooperative sources. The operation and maintenance cost of these stations will be financed from two sources, as follows: (1) $600,000 from this budget item for stations not directly attributed to the Corps projects; and (2) approximately $17,000,000 from Corps funds budgeted elsewhere for authorized projects and studies. The basic program will remain at the same level as in previous years. The need and capability in this area exceeds the requested budget amount.

ACCOMPLISHMENTS: Records for the streamflow stations supported by transfer of funds are used primarily to operate Federal flood reduction projects. In the past ten years these projects have reduced flood damages by an average of $21 billion annually. Not only are these gages used by the Corps, but 100 percent of the data are used by the National Weather Service as the basis for its public flood forecasts. In addition, the data are published on the Internet by the Corps and/or in a regular series of reports by the U.S. Geological Survey and provide valuable information for many Federal and state agencies and the public.

COORDINATION: This program is fully coordinated with the U.S. Geological Survey. Costs for conducting the work are compiled by representatives of the Survey to identify a basis for the transfer of funds to that agency.

Collection and Study of Basic Data

Transportation Systems

SCOPE: The Transportation Systems Program supports USACE Corps Districts and Headquarters personnel in accomplishing their navigation project planning and evaluation responsibilities through the provision of integral information components and technical support. The process of planning improvements for waterway system and harbor navigation projects necessitates consideration of needs, opportunities, benefits, and economic costs associated with placement of project improvements within the context of the project-specific areas as well as within context of the overall national transportation system. The Transportation Systems Program is managed by CECW-P and technically supported by CEIWR and is a continuous, on-going effort to ensure the development of viable and practical analytical techniques, sources of information, tools and methods including the development of deep draft and shallow draft vessel operating and replacement cost data which can be applied by District offices; the provision of timely information regarding world deep draft vessel fleet, commodity, and cargo flow forecasts; the publication of reports documenting the results of research associated with the Transportation System Analysis Program and relevant areas of the NETS Program; the provision of technical services and support to District and Division offices and Headquarters personnel. The goals of the Transportation System Program are as follows: (1) to improve the technical quality and accuracy of navigation planning studies as well as provide for consistency in analytical procedures and technical basis for review across the wide array of planning conditions encountered by District personnel; (2) to improve the strategic planning of navigation system(s) improvements; and (3) to reduce the costs of analysis, planning, and operation of waterborne navigation systems. These goals are accomplished by providing District and headquarters analysts with useful and consistent information, analytical tools, and procedures which result in end products which reflect responsible and prudent investment of Federal civil works funds.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$ 2,750,000
Budget Amount for FY 2011	350,000
Balance to Complete Five-Year Program after FY 2011	2,400,000
Appropriation for FY 2010	296,000
Change in FY 2011 from FY 2010	54,000
Average Annual Allocation for FY2003-FY2009	$403,000

APPROPRIATION TITLE: Investigations, FY 2011

Collection and Study of Basic Data

Transportation Systems (Continued)

JUSTIFICATION: Funding for the Transportation Systems program has been considerably reduced since FY 04, resulting in a loss of technical resources to support the program. The increase in FY 11 funding is necessary to restore lost technical support and to obtain viable vessel operating cost and trade data on an annual basis that is essential for ongoing Corps planning purposes. The $350,000 budget amount in FY 2011 for Transportation Systems would be used to update vessel cost and trade models and analyses used for planning and evaluation of ports, harbors, coastal waterways, inland waterway systems, and maintenance or modernization of planning methods and associated computer models to support District navigation studies nationwide. Funds would be used to continue to develop, improve, and provide inland and ocean-going vessel operating costs used to estimate transportation cost reductions or efficiencies (i.e., benefits) for Corps navigation studies; to continue to develop and provide commodity and fleet forecasts of waterborne traffic for deep and shallow draft navigation projects from recognized industry forecasting sources, update deep draft vessel characteristics for use by Corps field planners; provide rail, barge and truck models for use in estimating origin-destination transportation cost savings attributable to Corps projects; and to provide consulting and technical support services to Corps District and Division offices. However, increased funding will be essential in future years if the technical and analytical capabilities provided under the Transportation Systems program are to be sustained.

ACCOMPLISHMENTS: FY 2009 and 2010 accomplishments include: Update and distribution of shallow and deep-draft vessel operating costs guidance including investigation of life-cycle hull asset costing procedures and practices; updated bunkerage costs with posting to HQUSACE Homepage; continued activities for drafting a deep-draft vessel operating cost applications manual; secured and distributed macroeconomic & transportation forecast information from Global Insight and Informa Economics, Inc.

ACTIVITIES FOR FY2011: FY2011 funds will be used to provide ongoing updates and publication of deep-draft and inland vessel operating costs that were comprehensively updated in FY2010; ongoing update of fuel costs; distribute world trade and commodity flow forecasts (Trade Navigator), integration of the vessel characteristics database; renew contractor subscription materials from Global Insight and Informa Economics, including barge and rail operating cost models, and renew acquisition of databases from Lloyd's Register of Shipping & Clarkson's Research Services.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development

The Corps must pursue an aggressive R&D effort to take advantage of rapidly developing technologies and techniques that will promote significant monetary savings and greater reliability, safety, enhanced efficiency, and environmental sustainability in planning, design, construction, operations and maintenance of civil works activities.

The Civil Works R&D program is formulated to directly support the established Business Lines of the Civil Works Program including: flood and coastal storm damage reduction, inland and coastal navigation, environment (including natural resources, compliance, mitigation, restoration, and stewardship), water supply, hydropower, recreation, emergency management, and regulatory. The Civil Works R&D needs and requirements are identified based on the current Civil Works Program Strategic Plan, Corps divisions and district input, and the existing WRDA authorities. The R&D effort is a problem-solving process by which the Corps systematically examines new ideas, approaches, and techniques and develops field-ready products. The budget amount of $16,892,000 of General Investigations funds for the FY 2011 program would accomplish the very highest priority R&D needs. Within the President's budget program is allocated $2,000,000 for Environmental Benefits Assessment. High priority Research and Development requirements identified by practicing District and Division technical experts and by HQUSACE proponents are addressed through the program. Examples funded in FY2010 include engineering analysis of the impact of vegetation on levee safety and performance, improved design criteria for flood walls, flood and coastal storm surge risk analyses, engineering models for assessing coastal storm impacts, economic models for analyzing container ships operation at deep-draft ports, developing improved ecological planning models, assessing sedimentation at Corps reservoirs, and improved water supply management technologies, In addition, the FY2010 program included execution of congressionally directed activities related to Submerged Aquatic Vegetation (SAV) management, particularly focused on the Chesapeake watershed ($897,000), Technology Demonstrations for urban flooding in Nevada ($1,793,000), and climate change related to the Coastal Data Information Program (CDIP) ($100,000). The FY2011 program will continue to support R&D that will lead to better management of our nation's infrastructure, promote public safety, reduce risk, improve operational efficiencies, sustain the environment, and position our water resource systems to be both managed as systems and for adaptation to the implications of climate change. Between the Navigation Systems, Flood and Coastal Storm Damage Reduction, and Water Resources Infrastructure Programs, approximately $2,500,000 is invested in infrastructure related R&D. FY2011 with include a particular focus on understanding and developing adaptable strategies in response to Sea Level Rise. The FY2011 program will also include initiation of research and development toward developing the next generation of technological resources needed to manage sustainable coastal and estuarine systems (SUSTAIN).

Results of the Corps' GI R&D are directly incorporated into practice within the Civil Works Program through revisions or additions to Engineer Regulations, Engineer Manuals, Technical Guidance Manuals, Engineer Technical Letters, or Guide Specifications. Numerous other means of technology transfer are also used such as training courses, workshops, demonstrations, and other professional contacts. The Corps Civil Works R&D Program provides essential Product Lines with field ready end products and a high return on investment for the Corps, other Federal agencies and the Nation.

AUTHORIZATION: Authorization for ERDC to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the field of research and development.")

COORDINATION:
The Corps conducts Civil Works R&D through the U. S. Army Engineer Research and Development Center (ERDC) and the Institute for Water Resources (IWR). The ERDC consists of seven research laboratories:

Coastal and Hydraulics Laboratory, Vicksburg, MS
Cold Regions Research and Engineering Laboratory, Hanover, NH

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Construction Engineering Research Laboratory, Champaign, IL
Environmental Laboratory, Vicksburg, MS
Geotechnical & Structures Laboratory, Vicksburg, MS
Information Technology Laboratory, Vicksburg, MS
Topographic Engineering Center, Alexandria, VA.

The IWR is located in Alexandria, VA, and its Hydrologic Engineering Center (HEC) in Davis, CA. Policy guidance and executive oversight are provided by the Civil Works R&D Steering Committee co-chaired by the Director of Research and Development and the Deputy Director of Civil Works and comprised of CW division chiefs. The Director of Research and Development is responsible for developing the annual program. The Directors of ERDC and IWR are responsible for execution of the CW R&D program.

In order to most effectively use the limited R&D resources and to avoid unnecessary duplication of research effort, the Civil Works R&D Program maintains external technical exchange and technology transfer efforts with other Federal and major water resource agencies including the TVA, Bonneville Power Administration, Western Area Power Administration, EPA, NSF, Department of Agriculture (NRCS), Park Service, NOAA, DOI (USBR, Forest Service, FWS, USGS, DHS (USCG, FEMA, US Border Patrol), DOT (FHWA, FAA, MARAD), NASA, International Boundary Water Commission, International Joint Commission, DOE (NRC, FERC), the Navy, and state and local governments.

Corps researchers also maintain contact with the research activities of universities and industry through regular membership in such organizations as the American Society of Civil Engineers, the Civil Engineering Research Foundation, the American Concrete Institute, the American Society of Testing and Materials, the International Conference on Coastal Engineering, the American Association of Port Authorities, the American Society for Photogrammetry and Remote Sensing, Society of Environmental Toxicology and Chemistry, the Coastal Society, the Offshore Technology Conference, International Society of Soil Mechanics and Foundation Engineering, U.S. Society of Dams, and International Committees on Large Dams, the International Association for Hydraulic Research, the Association of American Geographers, Western Dredging Association and the International Navigation Association. The Corps also participates extensively with the Transportation Research Board, the Water Science and Technology Board, and the National Research Council in coordinating and leveraging research activities.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

SUMMARIZED FINANCIAL DATA:

Estimated Five Year (FY 2011 - FY 2015) Program Cost	$125,000,000
Budget Amount for FY 2011	16,892,000
Balance to Complete Five Year Program after FY 2011	108,108,000
Allocation for FY 2010	20,508,000
Change in FY 2011 from FY 2010	-3,616,000
Average Annual Allocation for FY 2005-FY 2011	24,705,000

The proposed FY 2011 R&D Program is structured to directly support the Civil Works Business Lines, their mission requirements and established performance objectives at project, watershed or river basin scales. The technical foundation of the R&D program includes:

a. Navigation (including Hydropower)
b. Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)
c. Environmental (including Regulatory)
d. System Wide Water Resources
e. Basic Research
f. Water Resources Infrastructure

Navigation (including Hydropower)

The Corps provides inland and coastal navigation critical to the national economy and defense. Navigation research delivers environmentally sustainable products that improve efficiency, reliability, and capacity of this complex, aging transportation/power infrastructure and operational network. The research framework integrates infrastructure engineering, power physics, economics, innovative construction, coastal and riverine hydrodynamics and processes, monitoring and sensing technologies, operations research, environmental solutions, and emerging technologies to create effective solutions in concert with the multiple demands, requirements, and constraints of real world commodity transport and power production problems. Research efforts target navigation channels, locks, jetties, breakwaters, harbors, dams and power plants to optimize among life-cycle and reliability trade-offs, assure defensible economic assessment, and provide better investment decision tools for predicting performance and deterioration with time, and for scheduling and prioritizing maintenance and repairs balanced with the consequences of delays. Essential to this effort is the development of tools for determining the condition of infrastructure components to make risk-based prioritizations for funding. R&D efforts for development of condition index products include: Developing a standardized method and associated computer program for life-cycle engineering analysis of coastal rubble mound breakwaters, Improved Condition Indexing for Coastal Structures, Monitoring of Concrete Navigation Structures, Inspection and Condition Assessment of Steel Hydraulic Structures, and Condition Monitoring and Predictive Maintenance for Infrastructure. Significant investment has also been directed toward developing improved navigation economic technologies that can be used to support better informed decision analyses and management of the United States inland and deep-draft navigation system.

Research and Development (Continued)

Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)

Corps projects across the Nation prevent flooding and storm damage. In the daily and seasonal operation of hundreds of Corps projects, national requirements for water supply and opportunities for recreation and environmental stewardship are also balanced. The Nation expects the Corps to guarantee that its existing projects maximize efficiency and effectiveness, and that new projects incorporate the most advanced knowledge and capabilities in planning, design, construction, operation, and maintenance. Through R&D, the Corps develops technology that optimizes daily operations of water resources projects to meet multiple objectives, including water supply and environmental stewardship. Through R&D, the Corps creates new solutions to challenging engineering problems in building, maintaining, upgrading, and operating the Nation's water resources infrastructure such as dams, locks, spillways, and channels. Through R&D, the Corps provides guidance and tools to understand the natural setting of water resource projects, to incorporate environmental & economic objectives, to manage flood risk, to assess alternative solutions, and to make optimal decisions. The technological requirements of emergency management are addressed to make possible the most rigorous planning and preparedness and the most efficient and effective response and recovery.

Environmental (including Restoration, Regulatory and Stewardship)

The Corps has ecosystem restoration and environmental stewardship & management responsibilities on millions of acres of land and water resources. Due to the enormous scope of this mission, it is imperative that Corps field personnel be able to apply the latest technologies for ecosystem restoration and environmental stewardship and management. The scale of ecosystem restoration activities on non-Corps aquatic resources ranges from large projects such as the Louisiana Coastal Area and the Comprehensive Everglades Restoration Program covering millions of acres - down to much smaller, local wetlands/stream restoration projects >50 acres. In addition, this R&D also supports the preservation and management of scarce natural resources on over 11 million acres of Corps-owned lands/waters. The broad scope of these environmental activities (as well as the frequent changes to the legislative mandates that govern them) demands sound research and development to address these critical needs. The goal of this R&D is to provide cost-effective/innovative technologies for project planning, design, engineering/construction and operation/maintenance. Product lines include: Ecosystem Restoration, Ecosystem Functional Assessment (with an emphasis on Environmental Benefits Analysis) and Environmental Stewardship and Management. Products include concise, how-to guidance documents that provide rapid/low-cost technologies and methods for high priority field needs - as well as sophisticated ecological process assessment models. This technology is critical to the success of the Corps' Ecosystem Restoration Business Line.

Research and Development (Continued)

System-Wide Water Resources

The goal of System-Wide Water Resources R&D is to provide the Corps of Engineers and its partners with the capabilities to balance human development activities with the natural system in a sustainable manner through regional management and restoration of the Nation's water resources over broad temporal and spatial scales. The capabilities provided include science-based water resource management methodologies, implementation guidance, computational frameworks and technologies, and decision support. These capabilities are built from sound scientific principles reflecting an improved understanding of inter-relationships among key system attributes such as hydrology, hydraulic processes, geomorphology, chemistry, ecology, and socioeconomic. Capabilities will be served via a seamless, integrated architecture allowing projects to be considered at multiple scales during project planning, design, construction, operation, and maintenance. R&D emphasis in this area is on developing assessment technologies for water resource operations affecting flood damage reduction and stream restoration technologies, regional sediment management, aquatic ecosystem management, assessment and restoration technologies, and regional and corporate frameworks for data collection, management and analysis. Each of these efforts is being pursued through extensive partnering and collaboration with federal and state resource management agencies, academia, and the private sector. There is active technology transfer through workshops and demonstration projects.

Basic Research

The objective of the Civil Works Basic Research area is to gain greater knowledge and understanding of the fundamental aspects of phenomena related to water resources. This effort will consist of farsighted and higher risk research with the potential for broad applications. Basic Research in Civil Works (BR) is structured to provide physical, engineering, environmental, social, and life sciences support to the major Corps of Engineers missions of reducing flood and coastal storm risk; facilitating navigation; and restoring and sustaining the environment.

Water Resources Infrastructure

The Water Resources Infrastructure (WRI) Program was added in FY2009, USACE projects across the Nation serve many functions, the two most important being navigation and flood control. Some elements of navigation and flooding infrastructure R&D are still contained within those programs with infrastructure R&D closely coordinated across all three programs. The total investment in infrastructure related R&D through the 3 programs is approximately $2,500,000. Navigation and Flood and Coastal projects are supported through a diverse network of infrastructure elements along the riverine and coastal environments. Infrastructure includes dams, locks, levees, jetties, beaches, flood walls, mechanical assets, buildings, etc. The Nation expects this infrastructure to function as designed and provide for sustained performance and life safety. As evidenced by recent natural disasters and reported numerous times by the American Society of Civil Engineers, much of this infrastructure in addition to infrastructure from other sectors has received a failing grade. Internally, the USACE has both a Dam Safety Program and a Levee Safety Program aimed at improving USACE infrastructure while working with other national partners. While both these programs are making tremendous strides related to dams and levees they are hindered by weaknesses in the engineering and scientific fields. Both the Dam and Levee Safety Programs could benefit greatly from investments, through research and development, to develop the technology needed to resolve current weaknesses in these fields. These technologies would naturally flow into the profession to benefit all the other National partners working on dam and levee safety. This technology developed through R&D is the focus of this proposed initiative. The main thrusts of the initiative are to monitor, research, develop, and transfer technology advancements into the existing Dam and Levee Safety Programs. This initiative is proposed as a companion program to the Dam and Levee Safety Programs that will assure technical competence and improvements in the tools and techniques that are available to monitor, inspect, repair, design, maintain and prolong our Nation's water resources infrastructure. Both the Dam and Levee Safety Programs utilize risk based procedures to account for uncertainties and to provide a framework for making risk informed decisions. This initiative will also support those risk based procedures through improved tools and techniques to enhance the current decision making process.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

PROJECTED CIVIL WORKS R&D FUNDING ALLOCATIONS (FY 10-11)

BY RESEARCH AREA	FY 2010 ALLOCATION	FY 2011 CEILING
a. Navigation (including Hydropower)	$ 3.609,000	$ 3,439,000
b. Flood and Coastal Storm Damage Reduction (including Emergency Management, Water Supply, and Recreation)	$ 2,507,000	$ 2,714,000
c. Environmental (including Regulatory)	$ 2,303,000	$ 2,597,000
d. System Wide Water Resources	$ 5,395,000	$ 6,083,000
e. CW Basic Research	$ 1,304,000	$ 1,689,000
f. Water Resources Infrastructure	$ 2,700,000	$ 370,000
g. Congressionally directed: Submerged Aquatic Vegetation	$ 897,000	0
h. Congressional directed: Technology Demonstrations for urban flooding in NV	$1,793,000	0
	$20,508,000	$ 16,892,000

BY CW BUSINESS LINE	FY 2010 ALLOCATION	FY 2011 CEILING
a. Navigation	$ 5,123,000	$ 5,360,000
b. Flood & Coastal Storm Damage Reduction	$ 8,513,000	$ 4,880,000
c. Environmental	$ 6,872,000	$ 6,652,000
	$20,508,000	$16,892,000

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

a. Commercial Navigation

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$31,400,000
Budget Amountd for FY 2011	3,439,000
Balance to Complete After FY 2011	NA
Allocation for FY 2010	3,609,000
Change in FY 2011 from FY 2010	-170,000

JUSTIFICATION:

The Corps' commercial navigation mission facilitates navigation through investments in waterborne transportation systems (channels, harbors, and waterways) that are cost-effective and environmentally sustainable. The U.S. Marine Transportation System (MTS) consists of over 300 ports, 1,000 harbor channels, and 25,000 miles of navigation channels. The MTS is already operating at near-full capacity in many areas and is being challenged by new vessel designs and traffic loads that exceed its channel, harbor, and lock capacities. Over 50 percent of the Corps' 191 lock sites (240+ locks) have been in service for more than 50 years. Research and Development (R&D) can help reduce the costs associated with delays due to closures for both scheduled and unscheduled repairs, as well as reduce the risk of catastrophic failure of a major infrastructure component.

This R&D area provides advanced and innovative tools and technology for the Corps to improve navigation functional performance, reduce unit costs, and improve safety. The Corps is expected to apply robust, reliable, and comprehensive capabilities to assess all impacts of alternative plans for projects and to select the most balanced and sustainable solutions. R&D delivers efficient and effective capabilities to plan, design, construct, operate, maintain, and upgrade transportation projects in inland and coastal locations and in all climates, from warm to ice-affected. Capabilities to improve system reliability are needed in an asset management framework to extend project life and reduce life cycle costs. Engineering and environmental aspects are integrated in the development of processes and design models, decision support software, infrastructure condition assessment techniques, risk frameworks, infrastructure and design guidance, and innovative monitoring, operation and maintenance technologies.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

a. Commercial Navigation (continued)

FY 2011 PROPOSED ACTIVITY:

- Complete initial upgrade to Bousinesq Modeling Toolbox (BMT) which increased accuracy of wave and current predictions in channel and harbor design, increasing vessel and operator safety and quantifying impacts to adjacent shorelines and structures.
- Complete initial evaluation of non-linear acoustic technique for use in finding microcracks in the underwater portion of steel navigation structures. This tool, when fully developed, would allow some inspection of navigation lock gates to be done without de-watering, resulting significant cost reductions and greatly reducing disruptions to inland navigation traffic.
- Initiate effort with the goal of minimizing negative economic impacts through improved reliability of lock systems.
- Initiate work to improve risk-based design tools for navigation system components, with the goal of developing models that more accurately predict the effectiveness of design decisions in a variety of conditions resulting from the changing climate.
- Provide tools and techniques to operational engineers for monitoring the state of non-exposed members within structures essential to navigation and public safety, thus improving the engineer's ability to manage physical assets.
- Develop systems to objectively assess the condition of structures and utilize these data within risk-based asset management tools to provide engineers and planners information necessary to develop and execute life cycle management plans.
- Expand Boussinesq modeling of vessels and interaction of vessels with other vessels and with wetlands, shorelines, and marine habitat.

FY 2010 ACCOMPLISHMENTS:

- Completed Coastal Structure Design Toolbox for Major Rehabilitation studies, allowing accurate and rapid design of breakwaters that includes optimizing life cycle costs.
- A digitally based Coastal Structure Condition Index form was completed along with accompanying documentation that will greatly facilitate performance based budget decisions for repair of jetties and breakwaters.
- Developed preliminary design and engineering methodologies for deformable bull nose system (dbns) for lock approach walls, which should greatly reduce barge train breakups during impacts with lock approach structures, saving millions of dollars in damage to navigation dams and reducing fatalities.
- Completed initial design of a lock miter gate instrumentation plan, which allows 24/7 monitoring of stresses in miter gates, significantly reducing the likelihood of unscheduled lock outages due to miter gate failures and associated navigation delays.
- Developed the capability to automatically collect and send via the Automated Identification System (AIS) messages on lock and environmental conditions to approaching tows, greatly increasing safety and efficiency of inland navigation around Corps locks.
- Completed test application and evaluation of numerous cavitation resistant coatings for hydro turbine blade surfaces, and identified those whose widespread application should allow for decreased hydropower plant maintenance of outage work and increased time between maintenance outages.
- Completed development of economic models to be used to assess Federal channel deepening benefits associated with the operation of commercial container ships in deep draft ports.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

b. Flood and Coastal Systems

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$20,000,000
Budget Amount for FY 2011	2,714,000
Balance to Complete after 2011	NA
Allocation for FY 2010	2,507,000
Change in FY 2011 from FY 2010	207,000

JUSTIFICATION:

The Corps of Engineers is responsible for more than 600 dams, operates over 400 major lakes and reservoirs, maintains 8,500 miles of levees, and has over 100 coastal storm-damage reduction and related projects associated with its Flood and Coastal Storm Damage Reduction mission. Flooding that occurs in the United States costs about $4 billion annually. Without the Nation's investment in flood and coastal storm damage reduction infrastructure through the Corps, that cost would be many times higher. Over the years, Corps flood protection projects have prevented an estimated $706 billion in damages, most of that within the last 25 years. The cumulative cost of building and maintaining these projects to date is $119 billion; therefore, every dollar spent on flood protection has prevented more than six dollars in damage. Despite this protection, annual damages in flood plains continue to rise due to changes in land use and urban development. In addition, the 2000 census showed that more than 50% of the US population lives within 50 miles of a coast and is therefore vulnerable to dangerous coastal storms and costly flooding. Consequently, over the past several years, Federal shore protection expenditures increased to more than $100 million per year to protect the public and related economic investments.

The Corps manages existing water resources projects around the country to maintain a flood-protection infrastructure for the public's welfare. Simultaneously, the Corps balances requirements for hydropower, water supply, environmental stewardship, and recreation. As enabling technologies are developed, the Corps must upgrade and improve water resource projects, use the most advanced capability to assess the risk of alternative operational scenarios, and apply robust, reliable, and comprehensive capabilities to assess the economic and environmental effects of alternative plans for projects and to select the most balanced and sustainable solutions. R&D delivers efficient and effective capabilities to plan, design, construct, operate, maintain, and improve water resource projects in all climates and settings, from warm to ice-affected, and from inland to coastal.

Capabilities that prevent loss of life, minimize property damage, and reduce the life-cycle costs of projects are critical. These capabilities include advanced processes and design models, economic models and decision support software, infrastructure condition and risk assessment tools, infrastructure design guidance, innovative operation and maintenance technologies, flood-alert instrumentation and expedient emergency response capabilities, and the capability to take advantage of new real-time data sources (e.g. precipitation radar) to accurately forecast real-time flow and stages.

Research and Development (Continued)

b. Flood and Coastal Systems (continued)

This R&D component provides advancements in hydrologic and hydraulic simulation, water resources project optimization, tools for effective alternative analyses for solutions, infrastructure safety, structural design and performance, and assessment of the risk and uncertainty associated with project designs. This R&D component also improves the technology available to emergency managers for emergency planning, preparedness, response, recovery, and assessment.

FY 2011 ACTIVITY:
- Integrate operational road damage model with flood risk management modeling framework for improved project formulation and risk assessment.
- Enhance operational water management models to include standardized methods for reservoir water supply firm yield calculation and improved hydrologic statistics
- Release operational hurricane modeling framework with improved model physics and computational efficiency for evaluation of storm damage reduction alternatives and coastal risk assessment
- Continue examination of interaction between vegetative types and landscape features with coastal storms to improve prediction of hurricane and storm affects for coastal risk assessment
- Release initial version of coastal storm database with data analysis, decision support and visualization tool sets.
- Integrated operational road damage model with flood impact analysis software for improved flood risk management project formulation and assessment.
- Release operational version of computational framework of models to incorporate physical and economics response of systems of projects for risk-based project formulation and performance assessment
- Demonstration of reservoir sedimentation assessment methodologies and provide improved guidance for reservoir sediment management.
- Initiate examination of uncertainty associated with predictions of coastal climate change and the sensitivity of key project formulation and project risk assessment parameters across Corps coastal missions.

FY 2010 ACCOMPLISHMENTS:
- Developed operational version of planning tool for estimating flood damage costs to roads based on enhanced road damage functions
- Released software framework to coordinate and control hydraulic and hydrologic model execution and data exchange, and enhanced model capabilities, and decision support and statistical analysis tools for improved reservoir system management, flood risk assessment and project formulation, and watershed assessment studies.
- Developed initial version of a computational framework of models to incorporate physical and economics response of systems of projects for risk-based formulation and performance assessment for flood risk management projects
- Developed initial version of physics based engineering hurricane modeling framework for improved storm impact predictions and risk assessment
- Developed an improved stochastic modeling capability for river morphology evolution to evaluate engineered structure performance and environmental impacts over project lifecycle timescales
- Developed and validated standardized applications guidance to compute reservoir firm water supply yield.
- Updated an operational multi-agency reservoir sedimentation database and developed decision support software to assess the extent of sedimentation impact, nation-wide.

Research and Development (Continued)

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

c. Environmental

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$15,000,000
Budget Amount for FY 2011	2,597,000
Balance to Complete after FY 2011	NA
Allocation for FY 2010	2,303,000
Change in FY 2011 from FY 2010	294,000

JUSTIFICATION:

Since the Water Resources Development Act of 1986, there have been dramatic increases in authorized ecosystem restoration studies, projects and programs. At the same time, the Corps has continued to operate and maintain 25,000 miles of inland and coastal navigation waterways, 5,500,000 surface acres of reservoirs, 237 navigation locks, over 1300 ports and harbors, 75 hydropower projects, 879 flood control projects, and thousands of acres of adjacent lands as part of its water resource mission. Wide-ranging environmental compliance, management, and restoration efforts have become crucial parts of the Corps water resource management mission. The Corps must consider environmental issues related to the operation and maintenance of its existing projects as well as the restoration of degraded ecosystems. In addition, the Corps must proactively address potential negative environmental impacts resulting from proposed activities. This research area addresses the Corps' highest priority environmental issues through the development and application of state-of-science, cost-effective, time-saving technologies including: 1) guidance for improved ecosystem restoration tools and techniques for rivers, streams and riparian zones; 2) engineering & biological technologies for the quantitative benefits assessment of aquatic resources, and 3) retrospective analysis of past ecosystem restoration projects to assess actual vs. modeled functional restoration. These user-oriented products will provide scientifically-defensible / field-validated solutions to the Corps' highest priority environmental problems. They will also reduce unnecessary regulatory burdens, provide environmental benefits, and maintain a high return on taxpayer investment.

Quantifying the environmental benefits / ecological outputs of proposed Corps ecosystem restoration projects is essential for decision makers to be able to select those projects that will yield the highest social, economic and environmental services. The scientific community has criticized current state-of-the-science assessment approaches regarding the underlying model assumptions, oversimplified relations, excessive data requirements, complexities in integrating impacts, and the lack of meaningful metrics to permit biologically-effective decisions. Moreover, current assessments are static and frequently insensitive to important system dynamics, not applicable across multiple scales, and incapable of predicting future conditions. Corps decision makers need robust assessment tools that: incorporate modern ecosystem principles, are easy to apply, offer significant user flexibility to meet individual project requirements, and that provide quantifiable output relevant to the Corps' Performance Measures. These environmental benefits analysis tools will be provided in brief user-focused technical guidance documents, web-based decision support systems, webinars (interactive web presentations between R&D Scientists & Engineers and Corps Practitioners), classroom & CD/internet based training, and product technical support as required. Additional high priority research and investments in developing Ecosystem Planning Models and in Submerged Aquatic Vegetation research will be conducted as funding becomes available.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

c. Environmental (continued)

FY 2011 ACTIVITY:
- Demonstrate Environmental Benefits Analysis (EBA) tools on on-going ecosystem restoration projects
- Provide Corps workshop show-casing recently developed EBA tools
- Complete final draft guidelines for Corps' EBA guidebook and toolkit
- Complete EBA / Ecosystem Restoration Gateway web site for Corps and others involved in Ecosystem Restoration practice
- Provide EBA support tool (operationalized) for Corps practitioners
- Provide case studies and mock examples illustrating innovative applications of EBA tools
- Provide guidelines for determining cumulative effects of multiple ecosystem restoration projects for alternatives analysis
- Develop scientific guidelines – based on demo projects – for determining project limits for select restoration goals
- Provide a retrospective benefits assessment for Corps ecosystem restoration projects
- Develop and demonstrate tools for rapid collection of spatially-explicit environmental data

FY 2010 ACCOMPLISHMENTS:
- Demonstrated state-of-the-science Environmental Benefits Analysis (EBA) tools on on-going ecosystem restoration projects
- Developed initial framework and guidelines for Corps' EBA guidebook and toolkit
- Provided EBA support tool (operationalized) for Corps practitioners
- Developed a database of programmatic metrics and services for comparing ecosystem restoration projects at regional and national scales
- Provided case studies and mock examples illustrating innovative applications of EBA tools
- Provided EBA / Ecosystem Restoration user content to Gateway website
- Developed user guidance on the range of natural dynamism in fully functional ecosystems and the implications for project planning and design
- Provided a Conceptual Model Builder software tool for Corps planners
- Demonstrated new strategies for quantifying cumulative benefits from multiple projects for both estuarine and riverine systems

Research and Development (Continued)

d. System-Wide Water Resources.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$6,083,000
Budget Amount for FY 2011	6,083,000
Balance to Complete after FY 2011	0
Allocation for FY 2010	5,395,000
Change in FY 2011 from FY 2010	688,000

JUSTIFICATION:

In view of the importance of sustainability in water resources management, the Corps is adopting a watershed or basin-wide approach, which adds a system-wide perspective to project planning, design, operations and maintenance activities. This spatially expanded perspective is necessary because water resources projects and resultant changes in land/water use have consequences well beyond project footprints. Key to sustainability is the balance among environmental, economic and societal concerns. The System-Wide Water Resources component of the Civil Works GI R&D Program is designed to provide the Corps with the technical capabilities required to meet its mission responsibilities at project, watershed, and large basin scales, while effectively engaging stakeholders and decision makers with potentially competing interests (e.g., environmental vs. economic). The original intent of SWWRP will be completed in FY11 with the complete roll-out of a functional line of technical products.

Wide-ranging proactive environmental compliance, management, and restoration efforts are an integral part of the Corps responsibilities in water resources management. Recent U.S. figures have estimated $16 billion per year in damages caused by point- and non-point-source pollution, with up to 1 billion tons per year of eroded soils and industrial and agricultural contaminants being deposited in the Nation's waterways. These impacts are severely affecting multiple project uses, impeding navigation, impeding ecosystem restoration efforts, and negatively affecting human and ecological health. An integral part of the Corps' mission is to ensure that project planning, construction, operation, and maintenance activities solve critical environmental problems, while ensuring economic viability and societal acceptance. The System-Wide Water Resources component is providing, at a regional scale, scientifically proven and demonstrated solutions to the Corps' highest priority environmental problems, such as complex ecosystem restoration projects, watershed assessments and simulations, nutrient and sediment transport and loading to aquatic systems, and ecological response to water resources management activities. Applications of SWWRP products were used in over 300 studies for floodplain management, river and reservoir operations, river and estuarine navigation, and asset management. The broadened focus of this research, which addresses systemic water resource management issues, will enable the Corps to more effectively meet legal requirements such as the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA).

Maintaining navigable waterways and flood channels in the face of continuing sediment deposition consumes a substantial portion of the Corps' budget. More effective sediment management on a regional scale can reduce dredging costs and potentially adverse environmental impacts by diverting sediment from channels and into deposition zones. Sediment and associated nutrients/contaminants also have important effects on the environment. Thus, a better understanding of sediment processes in an environmental context is critical in relation to habitat and water quality concerns regionally. Also, attention to sediment processes in the Corps O&M program will improve cost effectiveness in planning and designing navigation projects, estimating channel shoaling, locating optimum dredged-material placement, and assessing the impact of navigation projects and structures on adjacent waters, shorelines, and downstream areas.

Research and Development (Continued)

d. System-Wide Water Resources (Continued).

Decision makers both within the Corps and among stakeholder organizations require accurate and reliable data for the effective planning, design, construction, operation, maintenance, and rehabilitation of projects. Annual expenditures for collection, analysis, and management of geospatial data alone are estimated to average almost $200 million. This component of the overall Program will provide significant savings, owing to the development of more effective and efficient data collection, management, and exploitation technologies. To further reduce costs, a new framework approach is being developed to integrate and manage data and decision support software in a consistent, corporate manner. The developed information framework will integrate many of the data, technologies, models, and decision support tools across the Corps' business activities for the many different communities of practice that support regional water resource management activities. The framework will include all aspects of informatics' development, including but not limited to automated information systems, information security, and enterprise GIS, metadata standards, model/decision support tool interoperability, data visualization, and knowledge management.

As new and innovative technologies and methodologies are developed in this component, it will be critical to transfer information concerning these innovations to the Corps, other Federal, state, and local agencies, and to the public as quickly and efficiently as possible so that they can be effectively applied. It will be equally important to validate the applicability of the innovative technologies through demonstrations, which are a key element of this component.

The System-Wide Water Resources component of the Program is developing and delivering technology to support decisions that are scientifically, technically, and economically sound in formulating and executing watershed projects. The products of this component serve a wide variety of needs and interests, ranging from decision makers to technical specialists to stakeholders and partners. New technologies are being delivered to users via the Internet in a consistent, yet personalized, web-based format, together with tutorials explaining their characteristics and use. Analytical tools provided by this component serve a range of needs, ranging from screening level assessment capabilities to detailed numerical models. Many tools will be interconnected with standard linkages. The scientific rigor of these tools continues to increase with gains in scientific knowledge, as part of the continued maintenance and upgrading of capabilities.

Research and Development (Continued)

d. System-Wide Water Resources.

FY 2011 ACTIVITIES

- Complete release of SWWRP product line.
- Deploy suite of decision support systems for water resources management
- Deploy geospatial toolkit for watershed assessments
- Deploy suite of data management tools for multiple databases
- Deploy suite of watershed modeling tools with sediment and nutrient transport capabilities
- Deploy watershed hydrology and transport models coupled with vegetation model
- Deploy suite of ecosystem forecasting models
- Deploy suite of groundwater modeling tools
- Deploy coupled 1D and 2D reservoir models
- Deploy suite of riverine hydraulic models with sediment and nutrient transport

FY 2010 ACCOMPLISHMENTS

- Developed prototype decision support systems for water resources management
- Developed a prototype geospatial toolkit for watershed assessments
- Developed a suite of data management tools for multiple databases
- Deployed initial suite of watershed modeling tools with sediment and nutrient transport capabilities
- Developed a prototype watershed hydrology and transport model coupled with a vegetation model
- Developed prototypes of 3 ecosystem forecasting models
- Developed a prototype of groundwater modeling tools
- Developed a prototype coupled 1D and 2D reservoir models
- Deployed prototypes of 2 riverine hydraulic models with sediment and nutrient transport
- Deployed a tool for hydrodynamic connectivity and ecological responses at freshwater and saline interfaces

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Research and Development (Continued)

e. Basic Research.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year FY 2011-2015) Program Cost	$10,000,000
Budget Amount for FY 2011	$ 1,689,000
Balance to Complete after FY 2011	NA
Allocation for FY 2010	1,304,000
Change in FY 2011 from FY 2010	385,000

JUSTIFICATION:

Initiated in FY 2008, the Civil Works Basic Research program is structured to meet needs not in the current overall R&D program. The Corps R&D structure emphasized applied research and demonstration activities. The objective of the Civil Works Basic Research program is to gain greater knowledge and understanding of the fundamental aspects of phenomena related to water resources. This effort will consist of farsighted and higher risk research with the potential for broad applications. Basic Research in Civil Works (BR) is structured to provide physical, engineering, environmental, computational, social, and life sciences support to the major Corps of Engineers missions of reducing flood and coastal storm risk; facilitating navigation; and restoring and sustaining the environment. Successful investigations could lead to subsequent applied research and technology advancement and improved functional capabilities in water resources science and engineering. The laboratories will conduct basic research that challenges accepted theory or empirical assumptions. The BR program began modestly in FY2008 with $550,000. Three activities were started in FY08 specific to the fundamental nature of how the dynamics of currents and waves interact with vegetation, social cognitive modeling and risk analysis related to flood risk management, and electrokinetic transport in concrete. In subsequent years, a rigorous solicitation and competitive peer review process has been utilized to determine those research activities selected for funding. The BR program intends to commit $1,689,000 (or 10% of the R&D budget) for basic research in FY 2011. It is expected that a research work package will last no more than 3 years.

Focus areas for Civil works Basic Research are listed below form the basis for soliciting and prioritizing proposals for basic research activities performed by the laboratories and centers.

1. **Computational and Information Sciences.** Basic research in the computational and information sciences could support the Corps' full range of water resource management disciplines and activities. The supported disciplines include surface water and groundwater hydrology, open channel hydraulics, coastal hydrodynamics, sediment and constituent transport, geotechnical and structural engineering, and environmental science and engineering. The central themes addressed in this focus area include, but are not limited to 1) human/computer interface design optimization, 2) intelligent problem solving techniques and environments, 3) temporally- and spatially-variable model integration, 4) novel approaches to reduce computational burdens in discrete- and continuum-based process models, 5) defining and bounding uncertainty across water resource.

Research and Development (Continued)

e. Basic Research (Continued).

2. **Human Dimensions of Water Resources Management and Decision Making.** The most challenging problems facing the Corps' Civil Works program are the result of a complex web of science, engineering, and human factors. While significant emphasis has historically been given to resolving the science and engineering questions at the heart of these problems, it is increasingly apparent that limitations in our understanding of how people conceptualize, interpret, and respond to problems represents a significant impediment to successfully resolving water resource problems. In addition, social processes including human behavior and economic trends will affect and be affected by our projects and their performance. The human dimensions of water resource management and decision-making includes basic research in 1) the cognitive science of decision making, 2) interpretation and use of multi-attribute risk information in problem solving, 3) risk perception and communication, 4) cognitive barriers to human acceptance of new technology, 5) governance and public involvement in decision making, 6) human interactions with technology to facilitate public decision processes, 7) conflict avoidance and resolution, 8) economic/demographic impacts on water resources.

3. **Material and Transport Processes.** The Corps capability to analyze, plan, engineer, and operate its water resource projects is depends on the extent of knowledge of the physics of material and transport processes. In this context, *materials* include fluids (e.g., air, water, and ice), sediment, soil, chemicals, temperature, biomatter, and others. This focus area is concerned with investigations into material processes both locally and in transport. Local material processes are independent of material movement. Examples of local process are: ice formation, sediment consolidation, and changing water chemistry. Transport processes depend on material movement. Examples of transport processes are ice and debris movement, vegetation impacts on hydraulics, water quality of watershed, erosion processes, and deposition of biomatter. Material interactions are considered as well where one material interacts with another such as in air-sea interaction; surface water-groundwater interaction; terrain response to physical processes, and ice-soil interaction.

4. **Ecological Processes.** Ecological processes span the entire spectrum of interactions between the biological, physical and chemical components of the ecological community. This basic research focus is on formulating and quantifying the underlying theories necessary to explain and predict the long term sustainability of land and water resources through relatively short term tests and observations. The principles of data integration and assessment technologies to accommodate *a* variety of spatial and temporal scales from multiple land use and management activities are additionally of concern. Potential areas of interest include but not limited to: Physio-Chemical Impacts on Biological Systems, Species Interactions and Requirements (particularly Threatened and Endangered), Ecological Simulation Technologies, Environmental Recovery, Organism Behavior and Physiology, and Nutrient Cycling.

5. **Structures and Infrastructure Systems.** This focus area is concerned with fundamental processes that cause the deterioration of construction and geological materials (e.g., steel, concrete, and soils) and component elements of major structural features (e.g., locks, dams, breakwaters, and other water control structures). As these structures age, static and dynamic loadings, corrosion, biological and other forces (e.g., ice, waves, vibrations, and object impacts) reduce the strength of the materials and the resistance of the structure to service and extreme loads. Because the population of existing projects exceeds our ability to conduct major rehabilitation, the primary emphasis is on rapidly detecting, arresting and remediating deterioration of our infrastructure. Of particular interest at this time are basic research proposals relating to the impact of piping and seepage and vegetation in compromising or deteriorating the condition of levees and/or dams.

6. **Variability and Change in Water Resource Systems.** Watersheds and coastal systems are spatially and temporally dynamic and variable. This includes the influences of scale, changing climatic, geographic, environmental, and anthropologic drivers. The interconnectivity and changing balance of natural and modified water systems will impact future water resource science and engineering management. Basic research is needed in the sensitivity and

Research and Development (Continued)

interrelationship of those physical and human systems as they impact the performance and sustainability of USACE mission functions. Specific areas of potential research relate to, changing patterns in precipitation, snow cover, and coastal storms, water quality and quantity stressors, meteorological contributions to landscape evolution, and ecological and human interactions. Basic research proposed under this focus area should not be redundant of the wealth of scientific research being conducted on the causes of or documenting climate change, but rather directed toward the effect of change to water resource management.

FY 2011 ACTIVITIES:

- Complete research package on an intelligent linear solver system for scalable parallel solutions of large scale surface and subsurface flow and transport problem.
- Complete research package on improved understanding of fish feeding in complex aquatic environments using agent based algorithms coupled to CFD models.
- Complete research package on quantifying time-varying wall shear stress in simulated wave-current environments.
- Complete research package on diversification of project portfolios for nonsystematic risks of variability and change in water resource systems.
- Initiate 2-3 new research projects.

FY 2010 ACCOMPLISHMENTS:

- Initiated new Basic Research program projects in the focus areas described above.
- Completed a basic research project to determine the fundamental nature of how the dynamics of currents and waves interact with vegetation. The goal of this project was to significantly improve the "state-of the art" in the physics-based theoretical foundation for wetland-wind-wave-surge-risk interactions. This work investigated/evaluated several existing empirical theories and will provide a marked improvement in our understanding of governing principles for these interactions.
- Completed a basic research project on social cognitive modeling and risk analysis related to flood risk management. A formal characterization of analysts, decision makers, and stakeholder views and risk perceptions will facilitate the development of better management alternatives and foster effective communications and training about flood risks and their management.
- Completed a basic research project to develop a quantitative understanding of the physics of electrokinetic transport in concrete. Of particular interest is the transport of ions, particles and fluid through hardened concrete that could mitigate or reverse its deterioration by various processes.
- Began new research on a new approach to predicting and modeling phytoplankton blooms.
- Began new research on efficient resolution of complex transport phenomena using Eulerian-Lagrangian Techniques.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

f. Water Resources Infrastructure.

The Nation's water resource infrastructure consisting of more than 700 reservoirs that minimize flooding and provide water supply; 12,000 miles of commercial inland waterways and 926 shallow and deep draft harbors to assist with the transport of more than 2 billion tons of annual commercial cargo; 8,500 miles of levee systems to protect against flood waters; 368 million visitors annual visitors to USACE recreation areas that also generate 500,000 jobs and $15 billion of economic activities; leading National provider of outdoor recreation with 54,730 miles of lake shoreline; and responsibility for stewardship of 11.7 million acres of public lands creates an immense accumulation of assets requiring continual maintenance and periodic upgrades. Much of this infrastructure has reached or exceeded its design life requiring extensive maintenance and/or rehabilitation.

The state of the Nation's infrastructure is far from acceptable, including the entire water resources infrastructure that is the responsibility of USACE. Nevertheless, the USACE will continue to be heavily engaged in a water resources mission for many years to come. Assuming that resources will be constrained in the future, there is a need to reduce costs while showing economic benefits for federal programs. Government at all levels will need to collaborate with each other and with their customers, users, stakeholders, industry sectors, and appropriate public sector representatives to provide required services. The Corps's Civil Works mission will continue to be centered on the management and development of the Nation's water resources infrastructure; environmental stewardship, restoration, and enhancement; disaster response and recovery; and engineering and technical services. There will be an increased concern for watershed and ecosystem restoration management. The next generation of projects will focus primarily on environmental restoration, non-structural, and structural solutions. Given an expectation for an increased demand for public sector development and management of water resources infrastructure and improvements in the reliability, safety, and performance of existing infrastructure, the COE will continue to serve the Nation in providing water resources management and design, construction, and rehabilitation of water resources infrastructure. New project opportunities exist in environmental restoration and stewardship of broader flood plains and stream corridors, in non-structural solutions or the integration of non-structural and structural solutions, and in reducing damages from floods and storms. Existing projects and systems will need to be rehabilitated, modernized, or reformulated to increase performance and to provide new benefits. In this pursuit, the Corps will need to pay attention to minimizing operational and maintenance costs.

Over the short term – the next 5 years – new methods, tools, and technology are needed to reduce projects costs and achieve large-scale cost avoidance in building, operating, rehabilitating, or modifying Civil Works projects and systems. Specific new methods or technologies are needed to successfully complete new types of projects within legal requirements. Technology provides a means by which to repair, maintain and develop more innovated approaches, techniques, and materials, e.g., to apply more efficient procedures or materials. Research will focus development of tools and technology toward improving the efficiency and effectiveness of existing water resources infrastructure in ways that increase the economic, environmental, and social welfare of the Nation.

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY 2011-2015) Program Cost	$15,000,000
Budget Amount for FY 2011	$370,000
Balance to Complete after FY 2011	NA
Allocation for FY 2010	$2,700,000
Change in FY 2011 from FY 2010	-2,330,000

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

FY 2011 ACTIVITIES:

- Development of robust engineering toolbox and control center for analysis and decision making process supporting the Dam Safety Program
- Finalize development of an unlined spillway erosion toolbox and manual for evaluation of spillway breach potential
- Finalize development and release of PC based software package to analyze potential failure modes of concrete gravity dams founded on rock
- Develop methodology to evaluate inflow frequency curves up to the probable maximum flood and assign a single probability of occurrence

FY 2010 ACCOMPLISHMENTS:

- Completed preliminary development of engineering toolbox and beta version of database/website for repository of tools and data necessary to dam safety cadres
- Released beta version of unlined spillway erosion toolbox
- Completed R&D to support release of guidance document to evaluate performance of I walls along with PC based software program (Corps_I_Walls)
- Released beta version of PC based software package (GDLAD_Foundation) to analyze concrete gravity dam potential failure modes
- Developed preliminary methodology to evaluate probability of extreme floods
- Completed R&D to define performance of levees with woody vegetation

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. Surveys

c. Special Studies

Study	Total Estimated Federal Cost	Allocation Prior to FY 2010	Allocation FY 2010	Budget Amount FY 2011
National Flood Risk Management Program	Annual Program	4,509,000	1,703,000	2,000,000

SCOPE:

This effort reduces the Nation's vulnerability to flood hazards by designing, implementing and directing a unified national approach to managing flood risks that is coordinated across all of the Federal and non-Federal agencies sharing the responsibility for flood risk management. In the United States, the responsibility for managing flood risks is shared across Federal, state and local government. For this reason, careful and consistent coordination between all levels of government is imperative for successful flood risk management. At the Federal level, the U.S. Army Corps of Engineers (USACE) and the Department of Homeland Security, Federal Emergency Management Agency (FEMA) both have programs to assist States and communities in reducing flood damages and promoting sound flood risk management. However, the authority to determine how land is used in floodplains and to enforce flood-wise building code requirements lies entirely in the hands of State and local government. These types of floodplain management choices made at the State and local level impact the effectiveness of Federal programs to mitigate flood risk and the performance of Federal flood damage reduction infrastructure. Likewise, Federal programs and infrastructure can influence the floodplain management choices made by local and State government.

For this reason, it is critical that the USACE work with FEMA and its other Federal flood risk management partners to sustain ongoing coordination with State and local governments. It was with this purpose in mind that the USACE established the National Flood Risk Management Program in May of 2006. Through this program, USACE is leading collaboration with other Federal agencies, state and local governments and agencies, and the private sector to develop and implement a unified national flood risk management strategy that eliminates conflicts between different flood risk management programs and takes advantage of all opportunities for collaboration.

Fiscal Year 2011 funding and beyond will continue to build on work that was accomplished in FY 2006- 2010. Specifically, the range of continuing activities involved in this effort includes,

- Identifying and addressing planning, institutional and policy impediments to successful flood risk management through national policy development and discussion forums (such as the 2009 National Flood Risk Management Policy Summit and the 2008 National Levee Safety Summit), working in collaboration with other Federal agencies and state and local government.
- Restructuring existing programs where warranted to improve effectiveness and coordination with federal, state and local agencies.
- Designing and developing implementation strategies for new programs to address unmet flood risk management needs.
- Building upon ongoing interagency coordination and collaboration to integrate USACE programs and authorities, both internally and with counterpart programs and authorities of other Federal agencies, state organizations and regional and local agencies.
- Establishing state (Silver Jackets) and watershed intergovernmental teams to develop and implement flood risk management solutions to state and watershed flood hazard priorities by assisting state agencies and local communities leverage information and resources, improve public risk communication, and creating a mechanism to collaboratively solve flood risk management issues and implement initiatives at the State and local levels.
- Developing and initiating a management framework to improve internal communication between USACE's HQ and Districts and FEMA's HQ and Regions on flood risk management policy, practices and guidance.

- Developing tools and methods for communicating flood risk and encouraging public involvement in flood risk management planning.

Priorities across the multiple activities included in this scope will be set by the USACE Senior Executive National Flood Risk Management Program Steering Committee and FEMA with Input from key stakeholder groups, such as the Association of State Floodplain Managers (ASFPM) and the National Association of Flood and Storm water Management Agencies (NAFSMA), will be taken into consideration when setting these priorities.

JUSTIFICATION:

The nation faces a growing flood hazard crisis with both existing development and newly developing areas locating in flood prone areas, often behind aging levees and flood control infrastructure. National flood damages, which averaged $3.9B annually during the 1980s, have nearly doubled in the past decade (1995-2004), to an annual average of $6.2B[*]. In addition to threatening public safety and economic investments, these flood risks represent a major liability for the U.S. taxpayer in the form of disaster assistance payouts for both emergency response operations and subsequent long-term recovery efforts. Federal disaster assistance outlays through the Disaster Relief Fund have grown drastically over the past three decades, increasing from an average annual outlay of $444M during the 1980s, to an average annual outlay of $3.75B during the past decade.[†]

In the United States, the responsibility for managing such flood risks is shared across the Federal, state and local levels of government and the private sector. In the absence of continuous collaboration, conflicting policies, programs and interests from multiple layers of government can work at cross purposes and undermine efforts to improve flood risk management, nationwide.

For this reason the U.S. Army Corps of Engineers established the National Flood Risk Management Program for the purpose of integrating and synchronizing USACE flood risk management programs and activities, with counterpart activities of FEMA, other Federal agencies, state organizations and regional and local agencies.

Goals of the program are to:

- Provide current and accurate flood risk and floodplain information to the public and decision makers at the national, regional, State and local levels.
- Identify and assess flood hazards posed by all flood risk reduction infrastructure including aging flood risk reduction infrastructure.
- Improve public awareness and understanding of flood related hazards and risks.
- Facilitate coordination of flood risk and flood hazard reduction programs and activities across local, state, and regional/watersheds with federal, state, local agencies, and Indian Tribes by implementing a lifecycle, system risk management strategy.
- Improve capabilities to collaboratively deliver and sustain flood risk reduction and flood risk mitigation services to the nation, regions and states and Indian Tribes.

The effort described in this Justification Sheet is needed to continue and direct improvements to the Nation's approach to managing flood risks accomplished through the National Flood Risk Management Program. In doing so, this effort will reduce the Nation's vulnerability to flood risks by working through that National Flood Risk Management Program with other Federal agencies, state and local governments, and the private sector to develop a unified national flood risk management strategy that eliminates conflicts between different flood risk management programs and takes advantage of all opportunities for collaboration.

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[*] Expressed in constant 2004 dollars. Ten year averages calculated from the NOAA National Weather Service Hydrologic Information Center Flood Damage Data, available at: http://www.nws.noaa.gov/oh/hic/flood_stats/Flood_loss_time_series.shtml

[†] Expressed in constant 2005 dollars. Note this estimate includes outlays for all disasters, not just flooding. Ten year averages calculated from data provided in Table 1. of CRS report FL 33053, Federal Stafford Act Disaster Assistance: Presidential Declarations, Eligible Activities, and Funding, August 29, 2005.

FY 2006 thru 2010 Accomplishments:
Throughout Fiscal Years 2006-2009, accomplishments in directing the National Flood Risk Management Program include:

- Established a National Flood Risk Management Program that integrates and synchronizes USACE flood risk management programs and activities, with counterpart activities of (FEMA), other Federal agencies, state organizations and regional and local agencies.
- Cooperated with FEMA, other Federal agencies, and states to establish Silver Jackets intergovernmental teams in AZ, GA, HI, ID, IL, IN, IA, KS, KY, LA, MD, MO, NJ, NM, NY, ND, OH, OK, TX, WV, NE to implement solutions to state flood risk hazard priorities.
- Convening policy discussion forums involving experts in flood risk management from the private sector as well as Federal and non-Federal agencies and leading in the development of new policy and guidance to address institutional, policy and planning barriers to effective flood risk management.
- Coordinating the USACE nation-wide levee inventory and assessments, improvements to the USACE levee inspection program, and USACE levee certification policies with FEMA's levee accreditation policies and nationwide flood map modernization program (Map Mod).
- Established the Intergovernmental Flood Risk Management Committee to provide for regular, quarterly meetings to provide FEMA and USACE leadership the opportunity to coordinate programs and policies, and thus improve program implementation for the flood risk management community. Additionally, the quarterly meetings have provided an opportunity for key stakeholder groups representing the non Federal perspective, the Association of State Floodplain Managers (ASFPM) and the National Association of Storm and Floodwater Management Agencies (NAFSMA), to provide both agencies direct feedback on specific policy and implementation issues faced at the state and local level.
- Initiated work to improve flood risk communication and ensure public involvement in flood risk management planning, working in coordination with Federal and non-Federal flood risk management partners.
- Working with communities to identify options to remediate deficient levees or otherwise address the resulting public safety hazards in a comprehensive flood risk management planning context.

FY 2011 Activities:
Fiscal Year 2011 funding will be used for activities including:

- Identify and address planning, institutional and policy impediments to successful flood risk management through policy development and discussion forums such as the December '06 Wye River National Flood Risk Policy Summit, the February 2008 National Levee Safety Summit, and the 2009 Flood Risk Management Policy Summit, working in collaboration with other Federal agencies and state and local government.
- Restructuring existing programs where warranted to improve effectiveness and coordination.
- Designing and developing implementation strategies for new programs to address unmet flood risk management needs.
- Building upon ongoing interagency coordination and collaboration to integrate USACE programs and authorities, both internally and with counterpart programs and authorities of other Federal agencies, state organizations and regional and local agencies.
- Establish new and maintain existing state and regional intergovernmental teams to develop and implement solutions to regional and state flood risk hazard priorities by assisting communities with leveraging information and resources, improving public risk communication, and creating a mechanism to collaboratively solve issues and implement initiatives.
- Reestablish the Federal Intergovernmental Floodplain Management Task Force comprised of senior executive representatives of Federal agencies to coordinate national flood risk management policies.
- Developing tools and methods for communicating flood risk and ensuring public involvement in flood risk management planning. The risk communication activities conducted for FEMA Map Mod Coordination, RiskMAP, and National Levee Safety Program are element of the larger flood risk management framework.

APPROPRIATION TITLE: General Investigations, FY 2011

Independent Peer Review

Study	Allocation for FY 2009	Allocation for FY 2010	Budget Amount FY 2011
External Peer Review	956,000	852,000	700,000

SCOPE:

Funds will be used to implement the independent (external) peer review (EPR) requirements as authorized in Section 2034 of the Water Resources Development Act (WRDA) of 2007 (PL 110-114). EPR requirements apply to pre-authorization feasibility studies and various other applicable studies as defined in WRDA 2007, the Information Quality Act, and associated Corps guidance. EPR costs are 100 percent Federal and generally will not exceed $500,000 per review. EPR is required for studies that will recommend projects exceeding $45 million in total costs, as well as studies where there is substantial risk to public safety, which employ novel methods, engender controversy, or meet other conditions as described in the legislation and regulations.

JUSTIFICATION:

Independent (or External) Peer Review is a statutory requirement.

APPROPRIATION TITLE: Investigations, FY 2011

National Shoreline

Study	Total Estimated Federal Cost	Allocation Prior to FY 2010	Allocation FY 2010	Budget Amount FY 2011	Additional to Complete After FY 2011
National Shoreline	9,000,000	3,047,000	471,000	375,000	5,107,000

SCOPE:
The study is an interagency effort to describe the extent and cause of shoreline erosion and accretion on all the coasts of the United States and describe the economic and environmental impacts of that erosion and accretion. The study will analyze and recommend the appropriate level of Federal and non-Federal participation in shore protection and beach nourishment, and the advisability of using a systems approach to sediment management for linking the management of all (shore protection, navigation channel dredging, and environmental restoration and preservation) projects in the coastal zone so as to conserve and efficiently manage the effects of erosion.

ACCOMPLISHMENTS:
The study was initiated with FY2002 funding. The Fiscal Year FY 2010 efforts included:

1) A study assessment was drafted for interagency review and coordination. The assessment was conducted to recommend study changes as a result of accomplishments to date, and significant events since 2002 that are shaping National shore management policies and paradigms. The significant events include the public release of the PEW and National Ocean Commission reports in 2000, flooding of New Orleans and Gulf Coast Hurricane Disasters in 2004, the continuing recovery of the Gulf Coast, formation of regional coastal state alliances, and the Coastal Zone Management Act reauthorization forums.

2) The study continued to support Corps participation in the systematic approach to sediment management reflected in the Corps Regional Sediment Management (RSM) process, regional coastal coalitions from which coastal policies are evolving and emerging, and Corps studies and participation in USGS and NOAA studies describing the state of the Nation's shores, describing systematic movement of sand along the Gulf Coast, and incorporate of the shoreline metadata into the National Coastal Databank. This effort is focused in the Gulf of Mexico and the North Atlantic.

3) The study formed an interagency committee on Shoreline Management to better coordinate the shoreline management missions and activities of the agencies at a national level and then to connect with the Shore Protection Systems prototyping work in the North Atlantic in item 4 below.

4) This study is supporting and monitoring the prototyping of a systems approach to the construction and operation of existing Corps coastal protection projects in the North Atlantic region, as a possible operational mode for shore protection projects in the future.

5) Working closely with USGS and NOAA, the study began to prepare a prototype of the NSMS report on a regional scale within the North Atlantic.

6) The study supported a case study of shoreline management history and Corps engagement at Ocean City, Ocean City Inlet, and Assateague Island, as a history of how shoreline management has changed and might evolve in the future.

JUSTIFICATION:
FY 2011 funding would continue work on this study. The Fiscal Year 2011 efforts would include:

1. $50,000 to continue Corps participation in the various Federal and non-Federal Regional Sediment Management and coastal alliances around the nation.
2. $50,000 to assess the application of a systems approach to shore protection project management and the preparation of a prototype regional shoreline management study.
3. $25,000 to support interagency participation in National Shoreline Management Committee and the continued production of regional case studies.
4. $250,000 to assess shore change and impacts in south Atlantic. Completion is scheduled for 30 Sep 2025.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

Planning Support Program (PSP)

SCOPE: The U.S. Army Corps of Engineers Civil Works Program requires a strong planning program to address the full range of complex water resource problems within its mission responsibilities and to better serve the Nation now and in the future. The Planning Support Program (PSP) was established in FY 2008. This program integrates various initiatives in response to Section 216 recommendations, Corps reform initiatives, and the Corps' Campaign Plan. The program has retained its priority but has received only limited funding (from various sources). The PSP strengthens the capabilities of the Planning Community of Practice (PCoP) to deliver approvable decision documents to Congress in response to identified water resource priorities. The PSP is a vital link to developing the world-class public engineering organization and technical leadership envisioned for the Corps in its Campaign Plan and the Civil Works Strategic Plan.

Congress recognized the need to maintain a strong planning program when it stated in the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662, Sec. 936):

"The Secretary shall study and evaluate the measures necessary to increase the capabilities of the United States Army Corps of Engineers to undertake the planning and construction of water resources projects on an expedited basis and to adequately comply with all requirements of law applicable to the water resources program of the Corps of Engineers."

In WRDA 2000, Section 216, Congress asked the National Academies to review Corps' planning and project review practices. In its recommendations, the National Research Council (NRC) of the National Academies recognized the many challenges and water resource planning and management controversies facing the Corps. The NRC recommendations are shaping the Corps today and the PSP is critical to moving the Corps and the PCoP forward in response to those recommendations.

WRDA 2007, Section 2033(e) allowed establishment of Centers of Specialized Planning Expertise within the Corps that would provide technical and managerial assistance for project planning, development, and implementation; peer reviews of new major methods, models, or analyses used infeasibility studies; and support independent peer review panels. Section 2033(e) authorization endorsed and accentuated the importance to the six national Planning Centers of Expertise (PCX) established by the Director of Civil Works in August 2003. With added the added emphasis of the WRDA the each of the PCXs has a key role in maintaining and strengthening the core competencies of the Planning Community of Practice.

The ASA(CW) sent a memorandum to the DCG CEO on February 24, 2009 counseling about the considerable variation in the quality of decision documents, feasibility reports and Chief's reports resulting from inconsistent understanding of basic planning and policy among MSC and RIT members. The ASA(CW) was clear that technical and process consistency must be restored. The ASA(CW)'s views continued support to Corps planning and policy training and to leadership development "as key commitments that pay valuable dividends" – he specifically cites the Planning Associates Program as an example. PCXs are also crucial resources for providing technical and process consistency.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$6,800,000
Appropriation for FY 2010	$1,793,000
Budget Amount for FY 2011	$2,100,000
Increase of FY 2011 over FY 2010	$ 307,000

JUSTIFICATION: The PSP has three major components, which together provide necessary support to improve the long term capabilities of the Planning Community of Practice (CoP). The three components--planner capability and training; specialized planning centers; and planner resources. Each component is described below with their estimated funding requirements.

1. Planner Capability and Training. The Planning CoP is a hub of learning for its practitioners who are now no longer limited by geography. The expertise of the community is bound in its members who share best planning practices, test innovative solutions, and coach and mentor as a Learning Organization. Development of a capable workforce to execute the mission today and in the future is a top priority of the Planning CoP leadership.

a. The Planning Associates (PA) Program is an advanced training program for journeyman level water resource planners in the Corps. The program has a long history but was reinvented in 2003 to include 20 instructional units held at various locations and extending over 1-3 week increments for 11 months. The goals of the program are to broaden the planners' competencies in solving complex water resources problems; to strengthen their leadership skills; and to retain critical planner capability as they progress toward expert planner. Since 2003, 65 planners have completed this rigorous training and 9 more are enrolled in current class. An amount of $2,300,000 will centrally fund a class of up to 12 students and support instructor and other field related expenses necessary to deliver this demanding and rigorous program.

b. The Advanced Degree Program in Integrated Water Resources Planning and Management was created in partnership with the Universities Council on Water Resources and USACE and leads to a masters or doctoral degree from the participating accredited universities. It is designed to provide the Corps water resources professional with higher level skills to address multi-objective planning and water resources management. The amount of $200,000 will be used to fund student attendance in the program's capstone sessions, and to supplement district funding of new and continuing students.

c. The Planning Models Improvement Program establishes a corporate process to demonstrate and independently document the soundness and validity of models used in the Corps' planning studies. The goal is to establish a toolbox of certified planning models that are readily accessible and that will produce theoretically sound and accurate decision documents. The availability of certified models in the toolbox will produce significant efficiencies in conducting planning studies and further enhance planner capability. Funding could be used to expedite certification of the highest priority planning models, many of which are technologically sophisticated and technically complex. The amount of $750,000 will be used to expedite certification of the highest priority planning models, many of which are technologically sophisticated and technically complex. Priorities will be identified by HQ, the Planning Advisory Board, and the Planning Centers of Expertise.

2. In August 2003, the Director of Civil Works designated six national Planning Centers of Expertise (PCX) to enhance Corps planning capability for inland navigation, deep draft navigation, ecosystem restoration, coastal and storm damage reduction, flood damage reduction, and water management and reallocation. The Centers have key roles in maintaining and strengthening the core competencies of the Planning CoP; providing technical assistance, conducting or managing peer review; transferring the latest technology or methodologies and sharing lessons learned and best practices throughout the planning community. The Centers focus planning expertise to improve product quality and corporate accountability and will also be instrumental in implementation of new approaches or methods resulting from the Corps' Campaign Plan. The PCXs are essential to preparation of the Water Resource Priorities Report directed by Section 2032 of WRDA 2007. Fully functional PCXs are indispensable resources in developing Planning Process Improvements; establishing feasibility study benchmarks; and, modifying regulations for Calculation of Benefits and Costs for Flood Damage Reduction Projects, and formulation and evaluation of alternatives as required by Section 2033(b), (c), (d) and (f). In a memorandum to the DCG CEO dated March 12, 2009, the ASA(CW) reemphasized how critical the PCXs are to the Corps' planning capability and to the success of the independent peer review described in Section 2034 of WRDA 2007. The ASA(CW) also noted the PCXs have been severely limited as they have struggled with insufficient resources since their inception. His assessment was each PCX needs a full time staff and a funding level of $3,500,000 for FY 2011. The DCG CEO reemphasized his support of the PCXs in a memorandum to the MSC Commanders dated April 30, 2009, stating "Effective PCX's are a key factor in the efficient execution of our long term CW requirements!" These funds are critical to the maturation and progress of the PCXs, which have been slowed by prior years of inadequate funding.

3. The Planner's Resource Website is a prime tool for the Planning CoP to utilize its decentralized expertise and facilitate the Learning Organization. As an internal communication resource, the site is an engine of learning, vital to the overall success of the Planner Support Program. It is an information repository, a "one-stop" resource for planners to obtain current information in key areas such as, policy and guidance; procedures; technical support; the planning process; points of contact; planner rosters, career development; and sharing lessons learned. The site resides on the Engineer Knowledge On-line site, a platform that provides community-wide communication, internal to the Corps of Engineers. Funds of $5,000 would support annual maintenance of the site once fully developed. Additional funds of $15,000 would allow district expertise from across the Planning Community to populate and update content, and assist with developing the accessibility and usefulness of the site to the community.

PROPOSED ACTIVITIES FOR FY 2010:

The funds appropriated for the PSP for FY 2010 will be used to support the Planning Associates Program. Future success of the Planning Support Program including the Planning Centers of Expertise and other purposes requires a sustained and reliable source of funds.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. General Investigations

c. Special Studies

Tribal Partnership Program (Sec. 203, WRDA 2000)

SUMMARIZED FINANCIAL DATA:

Estimated total (FY 2000-2010)	9,920,000
Allocation for FY 2005	3,850,000
Allocation for FY 2006	750,000
Allocation for FY 2007	2,320,000
Allocation for FY 2008	984,000
Allocation for FY 2009	954,000
Allocation for FY 2010	852,000
Budget Amount for FY 2011	1,000,000

AUTHORIZATION: Section 203 of WRDA 2000, reauthorized in Section 2011 of WRDA 2007,authorizes the study of flood damage reduction, environmental restoration, and restoration and protection, preservation of cultural and natural resources, water-related planning activities, watershed assessments, and "such other projects as the Secretary, in cooperation with Indian Tribes and the heads of other Federal agencies, determines to be appropriate." Projects follow the standard Civil Works planning process – a reconnaissance report, fully federally funded, and a feasibility report, cost shared 50/50 with in-kind contributions allowed. Separate authorization and appropriations are required from Congress for a project to proceed to PED and construction. The authorization applies to all federally recognized Indian Tribes, including those in the State of Oklahoma and Alaska Native villages. Note: in FY 07 and before, funds were in the Construction account. Beginning in FY08, funding has been through the Investigations account.

JUSTIFICATION: Section 203 was enacted to provide the Corps opportunities to partner with federally recognized Tribes. Priorities for allocation of Section 203 funds are: 1) continuation and completion of ongoing studies and termination of negative studies where appropriate; 2) initiation of studies requested by Tribes; 3) engagement of additional Corps Districts with Tribal governments to build strategic partnerships. . Priorities for 203 ensure that a range of studies throughout the Nation are funded. Because the scope of the authority is so broad, various studies may be considered – floodplain mapping, water control management, self-reliance and economic capacity building, technical capacity building, erosion control, cultural resources, comprehensive planning, emergency management, water quality, water supply, community infrastructure, hazardous and toxic waste assessment and clean up, and a host of other projects. Section 203 is the only Corps authority that specifically targets Tribes as partners, identifying opportunities to work with entities that otherwise might not be reached. With the growing awareness of the program, an increasing number of Tribes have begun to approach the Corps to participate in these studies. Tribes showing interest in new or continuing studies include Isleta, Jemez, Santa Clara and San Felipe Pueblos; the Maliseets, Passamaquody, Penobscot, Soboba, Havasupai, Tohono 'Oodham, Hopi, Augustine Band, Torres-Martinez Band of Cahuilla Indians, Navajo, Kickapoo and Miccosukkee; and the Native Villages of Newtok, Shismaref and Unalakleet.

APPROPRIATION TITLE: Investigations, Fiscal Year 2011

1. General Investigations

c. Special Studies

Tribal Partnership Program (Sec. 203, WRDA 2000) (continued)

PROPOSED ACTIVITIES FOR FY 2011: Albuquerque District will finish feasibility studies with the Pueblo of San Felipe and Santo Domingo, and finish a reconnaissance study with the Pueblo of Jemez. New England District will finish reconnaissance studies with the Maliseets and Penobscot. Los Angeles District will initiate feasibility studies with the Soboba, Havasupai, Hopi and Augustine Bands. Alaska District will continue with several 203 studies--feasibility studies in Unalakleet, Newtok and Shismaref, and a large data collection study on erosion along the west coast of Alaska and a cultural resources study near Kaktovik subject to coastal erosion. Detroit District will begin reconnaissance studies with the Fond du Lac, Saginaw Chippewa and Bad River (Lake Superior) Chippewa Tribes. Other Districts will consider studies that have been proposed by Tribes.

ACCOMPLISHMENTS IN PRIOR YEARS: Since its enactment, the majority of Section 203 funds have gone to Alaska to study erosion, including the feasibility of moving coastal villages inland. A major coastal erosion study and technical assistance to several Alaskan Villages have been funded in part by Sec. 203 monies. The Corps is currently studying various options of erosion control versus moving the villages inland. This effort has gone on for several years due to its complexity and will likely continue for many years to come. Villages with the greatest need include Newtok, Shishmaref, Kaktovik, Kivalina and Unalakleet.

Other Districts that have utilized Section 203 funding include Buffalo, Detroit, New England, and Walla Walla. Reconnaissance reports on various topics were prepared by the Corps for the Passamaquoddy, Little River Band (Ottawa), Chippewa, Cheyenne River Sioux, St. Regis Mohawk, Seneca/Cattaraugus Creek, Tuscarora, Potowatami, Wampanoag and Oneida. Omaha, Albuquerque and Sacramento received earmarks in recent years for reconnaissance studies with the Lower Brule, Cheyenne River Sioux, Shoshone-Bannock, the Pueblos of Santa Ana, San Juan, San Ildefonso, Santa Clara, Santo Domingo, and Zuni; the Jicarilla Apache, and the Washoe. Several positive 905(b) reports have been submitted to date, approved, and have begun feasibility –San Felipe Watershed Study (SPA), as an example. Tribes thus far involved have stated that even if a project does not proceed to feasibility, the program is still valuable because the resulting report pulls together enough information to proceed should additional funding become available, or if the Tribe decides to move forward. New Orleans, Vicksburg, Jacksonville and Kansas City Districts have expressed interest in 203 studies with their Tribes beginning in FY 2011.

APPROPRIATION TITLE: Investigations, FY 2011

Water Resources Priorities Study (New)

Total Estimated Federal Cost	Allocation Prior to FY 2009	Tentative Allocation FY 2010	Budget Amount FY 2011	Additional to Complete After FY 2011
TBD	0	0	2,000,000	TBD

SCOPE: This investigation provides a baseline assessment of the nation's flood risks at both a national and regional scale. This baseline assessment will provide an understanding of the comparative level of flood risks around the nation, as well as the key drivers of those risks, and so will serve as a foundation for making better informed choices about existing programs, authorities, policies, roles, and activities.

This investigation is authorized by Section 2032 of the Water Resources Development Act of 2007, which calls for an assessment of the Nation's vulnerability to flooding, and for recommendations for improving existing programs to better manage flood risks. The investigation will be divided into two elements. The first element will focus on a technical analysis, which will provide background and a basis for the second element, which will result in the public policy recommendations of the report.

The technical section will examine the risks to human life and the risks to property from flooding, and the comparative risks faced in different regions of the United States. It will provide examples to explain why those risks are greater in some floodplains and some coastal locations than in others, and why and how those risks may be changing over time. It will assess existing information on: (1) the number of people who live or work in places where they are potentially at risk; (2) the value of the property that is potentially at risk; and (3) actual flood-related losses (e.g., the frequency and magnitude of large losses, where such losses have been occurring, and the incidence of repetitive losses), in order to identify possible nationwide trends. This section of the report will also explore the extent to which existing programs may be encouraging development or other forms of economic activity in flood-prone areas or may otherwise be contributing to flood risks, and their effects on natural floodplain and other values. It will examine the full range of effects and tradeoffs associated with current approaches to provide a basis for considering how best to achieve flood risk management goals in concert with other societal objectives.

The second element of the investigation will focus on public policy. It will result in a section of the report that will assess the extent to which existing programs operate (individually and together) to address flood risk management priorities, including an exploration of the respective and appropriate roles of Federal, state, and local programs, and of their ability to work together. Its main purposes are: (1) to develop a basis for recommendations on better ways to approach flood risks, including ways to improve the effectiveness, efficiency, and accountability of existing programs; and (2) to propose a strategy to implement those recommendations.

The report will look at not only programs of the Corps of Engineers, but at a broad array of Federal, state, and local programs, including flood insurance, local land use planning, public safety, emergency response and recovery, disaster assistance, economic development, and environmental management programs. Fiscal Year 2011 activities include:

- Assembling an interagency policy group.
- Developing scopes of work for both elements of the effort.

- Determining the best way to complete the technical and policy elements.
- Initiate work on the technical element.

Fiscal Year 2012 activities will include:

- Completing work on the technical element.
- Working with the interagency policy group, developing recommendations and an implementation strategy for improving existing programs.
- Compiling and preparing a final report for submittal to Congress.

JUSTIFICATION: This investigation addresses the critical need for a baseline assessment of the nation's flood risks at both a national and regional scale, as well as an analysis of the effects of the existing portfolio of programs, authorities, policies, roles, and activities. A large body of evidence suggests the nation is facing growing flood risks. There is currently a lack of adequate information at a national and regional scale about the magnitude and source of those risks, as well as the effectiveness, efficiency, accountability, and impacts of existing programs. This investigation addresses the critical need for an analytically sound assessment of existing programs, which will provide a basis for significant recommendations on ways to better manage flood risks at the national, regional, state, and local levels. It will provide an understanding of the key drivers and magnitude of flood risks, as well as the net effect that the existing portfolio of Federal and non-Federal programs and policies has on those flood risks. Specifically, this study will provide a baseline assessment of the nation's vulnerability to flooding from a national and regional perspective and identify key drivers of flood risks, including those drivers expected to change over time. Additionally, this study will assess the combined effects of the existing portfolio of Federal and non-Federal programs and policies on choices that impact flood risk, including the choice to develop in flood-prone areas. This knowledge will provide a foundation for recommending improvements to existing programs, authorities, policies, and roles to better manage flood risks in coordination with states and localities.

APPROPRIATION TITLE: Investigations, FY 2011

Water Resources Principles and Guidelines (New)

Total Estimated Federal Cost	Allocation Prior to FY 2010	Tentative Allocation FY 2010	Tentative Allocation FY 2011	Additional to Complete After FY 2011
2,000,000	0	0	500,000	1,500,000

SCOPE:

This effort supports implementation of revision to the Water Resources Principles and Guidelines in accordance with requirements in the Water Resources Development Act (WRDA) of 2007 (Sec 2031, PL 110-114). Effort involves developing interagency guidelines with ASA(CW), CEQ and other affected agencies, and development and dissemination of USACE agency guidelines.

FY 2010 Activities: None.

FY 2011 Activities: Initiate and finish interagency guidelines; Initiate and complete National Academy of Sciences (Water Science and Technology Board – WSTB) review; and begin developing USACE agency guidelines ($500K.) This four year effort is scheduled to complete in FY 2013

JUSTIFICATION:

Revision to the Water Resources Principles and Guidelines is a statutory requirement of the Section 2031 of the Water Resources Development Act of 2007 (PL 110-114.)

REMAINING ITEMS

CONSTRUCTION

12. Aquatic Plant Control (APC) Program

Allocation FY 2010	$4,500,000
Budget for FY 2011	$4,000,000
Estimated Annual Cost for Continuing Program	$4,000,000

GENERAL: The Aquatic Plant Control (APC) Program is authorized by the River and Harbor Act of 1958 (P.L. 85-500) as amended by Section 104 of the River and Harbor Act of 1962 (P.L. 87-874), Section 302 of the River and Harbor Act of 1965 (P.L. 89-298), Section 610 of the River and Harbor Act of 1983 (P.L. 98-63), Sections 103, 105, and 941 of the Water Resources Development Act of 1986 (P.L. 99-662), Section 225 of the Water Resources Development Act of 1996 (P.L. 104-303), and Section 205 of the Water Resources Development Act of 1999 (P.L. 106-53). The APC Program is a comprehensive program authorized to provide for the control of invasive aquatic plants and continued research. The control of invasive aquatic plants in non-Federal waters is conducted through a 50:50 cost-share control operations arrangement between the Corps and State agencies. Furthermore, the Corps is responsible for the management of the Nation's continued research program, with the cost for the Aquatic Plant Control Research Program (APCRP) fully borne by the Federal Government. An annual statutory spending limit of $15,000,000 is authorized for the APC Program. In accordance with Administration policy, the focus of the APC Program is presently on continued research. The Administration believes that aquatic plant control operations are within the financial and institutional capabilities of state and local governments, while research provides benefits that are national in scope. Since this policy change in FY 1996, the only funded control operations have been provided by Congress.

Nearly 75 million acres of navigable waterways across the nation are now infested with invasive aquatic plants species. Failure to control the infestations will result in an escalating threat to the national economy by impacting the ability of commercial navigation to move through navigable waterways and increase the risk of state and regional economies being impacted because of impeded commercial navigation, a loss of capacity for flood control storage, decreases in potable water quality that threaten public health, increase risk to endangered species, losses of volume for water storage for agricultural irrigation, and negative impacts to fish and wildlife habitat. These infestations have also spread to Corps projects and are impacting the ability to store water for flood control and impact the ability to generate hydroelectricity. The Corps APCRP is the nation's only federally authorized research program providing the technology to manage invasive aquatic plant species. The APCRP is developing cost-effective, environmentally compatible aquatic plant control capabilities, including biological, chemical, ecological, and integrated control methods. The information obtained through this research continues to greatly improve the efficacy and diversity of management options, while minimizing adverse effects on the environment. Funding will ensure continued development of the new technologies needed for cost-effective aquatic plant control for existing and new invasive aquatic plant species for government entities across the nation. Funding will also ensure Corps capability to demonstrate new cost efficient and environmentally friendly control technologies on limited field sites to government entities across the nation.

PROPOSED ACTIVITIES FOR FY 2011: The $5,000,000 for will be used for continued research efforts to further develop ecologically-based, integrated plant management strategies for invasive aquatic plants (i.e., Eurasian watermilfoil, hydrilla, etc); control technologies for preventing the initial introduction and spread of invasive aquatic plant species over large acreages; replacing problem invasive aquatic plants with native species (providing much-improved aquatic habitat for fish and wildlife); and continuing research work on biological and chemical control technologies. New research initiatives include: overseas and in-country exploration for new biocontrol agents (insects and pathogens) for management of invasive aquatic plants; field evaluation of a pathogen bioherbicide for control of hydrilla; development of cost-effective, mass-rearing techniques for giant salvinia insect biocontrol agents; identifying changes in plant response to aquatic herbicides for Eurasian watermilfoil, hybrid milfoils, hydrilla and cabomba; development of improved chemical strategies for use in high water exchange environments; determination of herbicide impacts on non-target plant species; and development of a low-cost acoustic system for mapping submersed plants. New work is also proposed for the development of control technologies for flowering rush, monoecious hydrilla and golden algae. These new technologies will be a significant asset in implementing clean water initiatives by restoring aquatic systems harmed by invasive aquatic plant species. The APCRP will transfer this new technology to government entities quickly and efficiently. In recent years the APCRP has received approval and provided for the release of 12 insect biological control agents on 4 target plants (water hyacinth, hydrilla, water lettuce, and alligatorweed). Guidance on rearing, release, and establishment procedures that are critical to the utilization of the above insect biological control agents have been developed. The APCRP has played a major role, in cooperation with industry, in the USEPA registration and re-registration of 7 chemicals; assisted industry in the development and evaluation of improved, environmentally compatible and user-safe formulations and carriers for 4 new aquatic herbicides; and assisted industry in the development of bioassays for determining effectiveness of aquatic herbicides under field conditions. An aquatic herbicide manual that provides guidance on the safe and effective use of all registered products was produced and distributed. PC-based simulation models for operationally proven systems and biological control techniques for aquatic plant and growth models were also developed. Developed and distributed over 5,000 copies of the PC-based Aquatic Plant Information System (APIS) and developed web-based and mobile versions of APIS.

APPROPRIATION TITLE: Construction, FY 2011

Environmental Projects

Aquatic Ecosystem Restoration (CAP Section 206)

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2010	$27,126,000
Budget for FY 2011	$7,273,000

GENERAL: Section 206 of the Water Resources Development Act of 1996 (PL 104-303), as amended, authorizes up to $50,000,000 annually to carry out aquatic ecosystem restoration projects that will improve the quality of the environment, are in the public interest and are cost-effective. Non-Federal interests shall provide 35 percent of the cost of construction including provision of all lands, easements, rights-of-way, and necessary relocations. Non-Federal interests pay 100 percent of the cost of operation, maintenance, replacement and rehabilitation. Not more than $5,000,000 in Federal funds may be allocated to a project at a single locality.

PROPOSED ACTIVITIES FOR FY 2011 Projects for use of the requested funds:

SECTION 206 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
JACKSON CREEK, GWINETT CO., GA	F	GA	$100,000
STORM LAKE, IA	F	IA	$82,000
WILSON BAY RESTORATION, JACKSONVILLE, NC	DI	NC	$95,000
SOUNDVIEW PARK,CITY OF BRONX,NY	DI	NY	$3,500,000
CAP SEC 206 KELLOGG CREEK, OR	F	OR	$151,000
CARPENTER CREEK, WASHINGTON	DI	WA	$2,945,000
COORDINATION	COOR	USA	$400,000

APPROPRIATION TITLE: Construction, FY 2011

Environmental Projects

Beneficial Uses of Dredged Material (CAP Section 204)

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2010	$7,750,000
Budget for FY 2011	$2,195,000

AUTHORIZATION: Section 204 of the Water Resources Development Act (WRDA) of 1992 Public Law (PL) 102-580, Section 207 of PL 102-580, and Section 145 of WRDA of 1976 (PL 94-587), as amended by Section 933 of PL 99-662, Section 35 of PL 100-676, Section 207 of PL 102-580, Section 217 of PL 106-53, and Section 111 of PL 106-541.

JUSTIFICATION: Section 204 authorizes projects for the protection, restoration, and creation of aquatic and ecologically related habitats, including wetlands, in connection with dredging for construction, operation, or maintenance of an authorized navigation project. Section 204 total program limit is $15,000,000. Non-Federal interests are required to share in a minimum of 25 percent of the cost of each project. Section 207 modified Section 204 by authorizing disposal in any manner for which the environmental benefits outweigh the added costs. Section 145, as amended, authorizes placement of dredged material from Federal navigation projects on adjacent beaches if the state or a political subdivision of the state agrees to pay 35 percent of the incremental costs of such placement over the alternative least-cost, environmentally acceptable method of disposal. Policy for beach nourishment with dredged material limits Federal participation in such projects to one-time nourishment at each site.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 204 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
BARATARIA BAY WATERWAY, MILE 6.0-0.0, PLAQUEMINES PARISH, LA	DI	LA	$100,000
CAPE COD CANAL, SANDWICH, MA	DI	MA	$535,000
MANTEO OLD HOUSE CHANNEL, NC	F	NC	$260,000
NJIWW BENEFICIAL USE OF DREDGE, NJ (SECTION 204)	DI	NJ	$200,000
BUFFALO RIVER, NY	F	NY	$150,000
MAUMEE BAY HABITAT RESTORATION, OH	F	OH	$500,000
COORDINATION	COOR	USA	$450,000

APPROPRIATION TITLE: Construction, FY 2011

Flood Risk Management Projects

Emergency Streambank and Shoreline Protection (CAP Section 14)

Appropriation for FY 2010	$5,813,000
Budget for FY 2011	$4,993,000

GENERAL: Section 14 of the Flood Control Act of 1946 (PL 79-526), as amended, authorizes up to $15,000,000 annually for the construction of emergency bank protection works to prevent flood damages to highways, bridge approaches, public works, churches, hospitals, schools, and other non-profit public services. Each project selected must be economically justified and complete within itself. Federal participation under this authority is limited to a cost of not more than $1,500,000 at any single locality.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 14 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
LAKE MICHIGAN INTERCEPTOR, HIGHLAND PARK, IL	DI	IL	$1,447,000
CAPE LA CROIX, MO	DI	MO	$325,000
COLUMBIA, MO (WATER MAIN)	DI	MO	$650,000
GENTRYVILLE BRIDGE, GRAND RIVER	DI	MO	$650,000
LA JOYA, NM	DI	NM	$1,200,000
KENOVA, WATER TREATMENT PLANT, WV	DI	WV	$195,000
OHIO RIVER, HUNTINGTON, STAUNTON, WV (SEC 14)	DI	WV	$126,000
COORDINATION	COOR	USA	$400,000

APPROPRIATION TITLE: Construction, FY 2011

Flood Risk Management Projects

Flood Control (CAP Section 205)

Appropriation for FY 2010	$37,783,000
Budget for FY 2011	$6,635,000

GENERAL: Section 205 of the Flood Control Act of 1948 (PL 80-858), as amended, authorizes up to $55,000,000 annually for construction of flood control projects where such construction is not already specifically authorized by Congress. Projects are designed to provide the same complete project and same degree of protection provided under regular authorization procedures. Each project selected must be economically justified and complete within itself. Federal cost participation is limited to $7,000,000 per project at a single locality.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 205 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
PLATTE RIVER, FREMONT, NE	F	NE	$50,000
BEPJ POPLAR BROOK	DI	NJ	$4,250,000
BERNALILLO, NM	F	NM	$400,000
DUCK CREEK, OH FWS	DI	OH	$235,000
RIO DESCALABRADO	F	PR	$150,000
RIO GUAMANI-GUAYA	F	PR	$150,000
BEAVER CREEK & TRIBS, BRISTOL, TN	DI	TN	$500,000
WEST VIRGINIA STATEWIDE FLOOD WARNING SYSTEM	DI	WV	$500,000
COORDINATION	COOR	USA	$400,000

APPROPRIATION TITLE: Construction, FY 2011

Navigation Projects

Navigation Improvements (CAP Section 107)

Appropriation for FY 2010	$6,297,000
Budget for FY 2011	$1,227,000

GENERAL: Section 107 of the River and Harbor Act of 1960 (PL 86-645), as amended, authorizes up to $35,000,000 annually for construction of navigation projects where such construction is not already specifically authorized by Congress. Projects are designed to provide the same complete navigation project that would be provided under regular authorization procedures. Each project selected must be economically justified and complete within itself. Federal cost participation cannot exceed $7,000,000 per project.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 107 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
TATITLEK, AK	F	AK	$500,000
NORTH KOHALA NAVIGATION, HI	F	HI	$136,000
MACKINAC ISLAND HARBOR BREAKWATER, MI	F	MI	$200,000
COORDINATION	COOR	USA	$391,000

APPROPRIATION TITLE: Construction, FY 2011

Navigation Projects

Navigation Mitigation Projects (CAP Section 111)

SUMMARIZED FINANCIAL DATA:

Appropriation for FY 2010	$6,298,000
Budget for FY 2011	$8,300,000

AUTHORIZATION: Section 111 of the River and Harbor Act of 1968 (PL 90-483), as amended, authorizes the construction of projects for the prevention or mitigation of shore damages attributable to Federal navigation works.

JUSTIFICATION: The cost of installation is cost shared in the same manner as the costs for the project causing the shore damage were shared. The cost of operation and maintenance is borne by the non-Federal sponsor. Projects first cost shall not exceed $5,000,000 without specific authorization by Congress.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 111 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
CAMP ELLIS, SACO, MAINE	DI	ME	$8,000,000
COORDINATION	COOR	USA	$300,000

APPROPRIATION TITLE: Construction, FY 2011

Environmental Projects

Project Modifications for Improvement of the Environment (CAP Section 1135)

Appropriation for FY 2010	$24,220,000
Budget for FY 2011	$7,046,000

GENERAL: Section 1135 of the Water Resources Development Act of 1986 (PL 99-662), as amended authorizes review of Corps water resources projects to determine the need for structural or operational modifications for the purpose of improving the quality of the environment in the public interest; to determine if the operation of such projects has contributed to the degradation of the quality of the environment; and to carry out a program of such modifications that are feasible and consistent with authorized project purposes. Up to $40,000,000 may be appropriated annually. The non-Federal share of the cost of any modifications will be 25 percent. Not more than $5,000,000 in Federal funds may be expended on any single modification or measure pursuant to Section 1135.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 1135 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
SEC 1135 BRAIDED REACH	F	ID	$1,850,000
SEC 1135 BRAIDED REACH	DI	ID	$100,000
SHORTY'S ISLAND, ID (SEC 1135)	F	ID	$1,000,000
SHORTY'S ISLAND, ID (SEC 1135)	DI	ID	$1,850,000
TAPPAN LAKE, OH (SEC 1135)	F	OH	$61,000
LOWER COLUMBIA SLOUGH,OR	DI	OR	$1,455,000
BENNINGTON LAKE DIVERSION DAM, WA	DI	WA	$330,000
COORDINATION	COOR	USA	$400,000

APPROPRIATION TITLE: Construction, FY 2011

Flood Risk Management Projects

Shore Protection Projects (CAP Section 103)

Appropriation for FY 2010	$3,875,000
Budget for FY 2011	$3,100,000

GENERAL: Section 103 of the River and Harbor Act of 1962 (PL 87-874), as amended, authorizes up to $30,000,000 annually for development and construction of hurricane and storm damage protection measures along the Nation's shorelines where not already specifically authorized by Congress. Projects under this authority are formulated to provide the same complete project and degree of protection provided under regular authorization procedures. Each project selected must be economically justified and complete within itself. Federal cost participation is limited to $3,000,000 per project.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 103 PROJECT OR ACTIVITY	PHASE	STATE	BUDGET
FORT SAN GERONIMO, PR	DI	PR	$2,545,000
SEC 103 LINCOLN PARK	DI	WA	$200,000
COORDINATION	COOR	USA	$355,000

APPROPRIATION TITLE: Construction, FY 2011

Flood Risk Management Projects

Snagging and Clearing for Flood Damage Reduction (CAP Section 208)

Appropriation for FY 2010	$0
Budget for FY 2011	$200,000

GENERAL: Section 208 of the Flood Control Act of 1954, as amended, authorizes measures to reduce nuisance flood damages caused by debris and minor shoaling of rivers. Work under this authority is limited to clearing and snagging or channel excavation and improvement with limited embankment construction by use of materials from the channel excavation. Projects implemented under this authority have the same project cost sharing requirements as structural flood damage reduction projects implemented under specific congressional authorization. The non-Federal sponsor is responsible for a minimum of 35 percent of total project costs to a maximum of 50 percent of total project costs during the design and implementation period. Federal participation limit is $500,000 per project.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used on the following projects:

SECTION 208 PROJECT OR ACTIVITY	**PHASE**	**STATE**	**BUDGET**
SNAGGING AND CLEARNING OF UPPER BAYOU BOEUF, RAPIDES PH, LA	F	LA	$100,000
COORDINATION	COOR	USA	$100,000

APPROPRIATION TITLE: Construction – Fiscal Year 2011

Dam Safety and Seepage/Stability Correction Program

Allocation FY 2010	$49,100,000	Budget for FY 2011	$49,100,000
Evaluation Studies	$38,265,000	Evaluation Studies	$39,950,000
Post-Evaluation Work	$10,835,000	Post-Evaluation Work	$ 9,150,000

GENERAL: The Dam Safety and Seepage/Stability Correction Program provides for studies and modification of completed Corps of Engineers dams. There are over 650 dams under the Corps jurisdiction. While no Corps dams are in imminent danger of failure, some have been identified as having a higher risk of a dam safety incident than originally anticipated based on new data or the likelihood of extremely large floods and seismic events. The Corps has implemented a Portfolio Risk Analysis program and has completed screening 100% of the Corps dams. The evaluation studies funded under the Dam Safety and Seepage/Stability Correction Program are for dams identified with very high risks of a dam-safety incident (Dam Safety Action Classification I or II). Dam Safety Assurance modifications are made to provide for passage of the maximum probable flood (PMF) based on changes in the climate of the area. Other dam safety assurance modifications are designed to insure that the dam retains the reservoir during and after a major earthquake. Seepage problems at USACE dams are usually related to increase reservoir levels above the previous pool of record at a dam. Other seepage problems arise due to water seeping through the contact between the dam and bed rock. Static instability generally involves movement that starts at a slow rate and could result in massive displacement of large volumes of material if not corrected. Seepage/stability correction projects are classified as major rehabilitations for dam safety. Dam modification work is proceeding under existing authorities on projects where cost effective risk reduction measures have been identified in accordance with national priorities.

PROPOSED ACTIVITIES IN FY 2011: The $49,100,000 budgeted for Fiscal Year 2011 will be used (1) for high priority studies ($39,950,000) and (2) to continue post-evaluation work ($9,150,000) on high risk dam safety assurance, seepage control, and static instability correction projects.

$34,650,000 is budgeted for Evaluation Studies. The Corps Screening Portfolio Risk analysis has identified 105 Dam Safety Action Class I and II critical projects for studies during Fiscal Year 2011. These are the highest priority projects where studies have not been completed in prior years. These studies were previously budgeted under the Operations and Maintenance appropriation prior to Fiscal Year 2008.

Dam Safety Assurance Studies

- Cherry Creek Dam, CO
- Dworshak Dam, ID
- Isabella Dam, CA
- John Day Lock & Dam, OR & WA
- Martis Creek Dam, CA & NV

Seepage/Stability Correction Studies

- Addicks Dam (Buffalo Bayou), TX
- Allegheny L&D 6, PA
- Arkabutla Dam, MS
- Ball Mountain Dam, VT
- Barker Dam (Buffalo Bayou), TX
- Beach City Dam, OH
- Big Creek Diversion Dam, IA
- Black Rock Lock, NY
- Blakely Mountain Dam, AR
- Brookville Lake Dam, IN

APPROPRIATION TITLE: Construction – Fiscal Year 2011

Dam Safety and Seepage/Stability Correction Program (Continued)

Seepage/Stability Correction Studies (continued)

- Cape Fear River Lock & Dam 1, NC
- Canyon Lake, TX
- Carbon Canyon Dam, CA
- Cecil M Harden Lake Dam, IN
- Cedars Dam, WI
- Charleroi Lock & Dam (Mono Riv 04), PA
- Cumberland Dikes – Lake Texoma, OK
- Curwensville Dam, PA
- Delaware Dam, OH
- Depere Gen Laws Dam, WI
- East Branch Dam, PA
- Edward MacDowell Dam, NH
- Foster Dam, OR
- Ft. Lyon Dike – John Martin Dam, CO
- FWR Structure Site No. 47, MS
- Gathright Dam, VA
- Green River Lake Dam, KY
- Greenup Lock & Dam, KY & OH
- Hammond Dam, PA
- Hartford Levee – John Redmond Dam, KS
- Hidden Dam, CA
- Howard A. Hansen Dam, WA
- Howard Levee – F J Sayers Dam, PA
- J Percy Priest Dam, TN
- J Edward Roush Lake Dam, IN
- Kennewick Levees – McNary L&D, WA
- Keystone Dam, OK
- Lagrange Lock & Dam, IL
- Lake Shelbyville Dam, IL
- Lewisville Lake, TX
- Little Chute Dam, WI
- Magnolia Levee – Bolivar Dam, OH
- Mansfield Hollow Dam, CT
- Markland Locks & Dam, KY & OH
- Mill Creek Dam, WA
- Mill Creek Diversion Dam, WA
- Mississippi River Lock & Dam #1, MN
- Mississippi River Lock & Dam #2, MN
- Mississippi River Lock & Dam #3, MN
- Mississippi River Lock & Dam #11, IA & IL
- Mississippi River Lock & Dam #24, IL & MO
- Mississippi River Lock & Dam #25, IL & MO
- Montgomery Locks & Dam, PA
- Moose Creek Dam/Chena Lakes Project, AK
- New Cumberland Locks & Dam, WV
- Nolin Lake Dam, KY
- O C Fisher Dam, TX
- Orwell Reservoir Dam, MN
- Paint Creek Dam, OH
- Pasco Levees – McNary L&D, WA
- Patoka Lake Dam, IN
- Proctor Dam, TX
- Rapide Croche Dam, WI
- Richland Levees – McNary L&D, WA
- Robert S Kerr Lock & Dam, OK
- Rough River Lake Dam, KY
- Russell B Long Lock & Dam
- San Antonio Dam, CA
- Santa Fe Dam, CA
- Santa Rosa Dam, NM
- Stillhouse-Hollow Dam, TX
- Tappan Dam, OH
- Terminus Dam, CA
- Thomas J O'Brien Controlling Works Lock & Dam, IL
- Town Bluff Dam, TX
- Trinidad Dam, CO
- Union Village Dam, VT
- Upper Appleton Dam, WI
- Westville Lake Dam, MA
- Whittier Narrows Dam, CA

APPROPRIATION TITLE: Construction – Fiscal Year 2011

Dam Safety and Seepage/Stability Correction Program (Continued)

Seepage/Stability Correction Studies (continued)

Willamette Falls Lock, OR

Zoar Levee – Dover Dam, OH

(2) $9,150,000 is Budgeted for Fiscal Year 2011 for Post-Evaluation Work. These funds will be used to continue post-evaluation work on high risk dam safety assurance, seepage control, and static instability correction projects, once their evaluation reports are approved.

APPROPRIATION TITLE: Construction – Fiscal Year 2011

Employees Compensation (Payments to the Department of Labor)

Allocation FY 2010	$20,664,000	Budget Amount for FY 2011	$19,000,000

GENERAL: Public Law 94-273, approved April 21, 1976, 5 USC 8147b, provides that each agency shall include in its annual budget estimates a request for an appropriation equal to costs previously paid from the Employees Compensation Fund on account of injury or death of employees or persons under the agency's jurisdiction.

BUDGET REQUEST: The $19,000,000 for Fiscal Year 2011 represents the total cost of benefits and other payments made from the Employees Compensation Fund during the period July 1, 2008, through June 30, 2009, due to injury or death of persons under the jurisdiction of the Corps of Engineers civil functions and also includes $1,200,000 for the investigation of fraudulent claims for workers' compensation benefits.

APPROPRIATION TITLE: Construction, FY 2011

Navigation Projects

Inland Waterways Users Board

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$335,000
Appropriation for FY 2010	335,000
Budget Amount for FY 2011	335,000
Change in FY 2011 from FY 2010	0

AUTHORIZATION: The Inland Waterways Users Board was established by Section 302 of the Water Resources Development Act of 1986, (PL 99-662) and pursuant to the Board's charter, approved by the Secretary of the Army on March 3, 1987. The Board is an advisory committee subject to the requirements of the Federal Advisory Committee Act (PL 92-463, as amended).

JUSTIFICATION: The $335,000 for FY 2011will support, operations and expenses of the Inland Waterways Users Board (the Board), established by Section 302 of the Water Resources Development Act of 1986, (PL 99-662) and pursuant to the Board's charter, approved by the Secretary of the Army on March 3, 1987. The Board is an advisory committee subject to the requirements of the Federal Advisory Committee Act (PL 92-463, as amended).

(1) Funds in the amount of $60,000 will meet the estimated expenses of the eleven-member Board for its travel, meeting, and other needs to meet the requirements of the charter. Board member travel expenses have increased from prior years due to inflation, primarily for airfares.

(2) Funds in the amount of $275,000 are for Corps of Engineers expenses related to its responsibilities as an advisory committee sponsor and to facilitate reevaluation of the financial structure of the Inland Waterways Trust Fund. The Deputy Commanding General for Civil Works and Emergency Operations has been designated Executive Director to the Board, and he has designated staff members to provide continuing Board support. Corps expenses will include personnel costs for administrative Board meeting support, including staff travel, clerical, printing, and related materials. Additionally, increased staff time is needed due to the ongoing reevaluation of the financial basis of the Inland Waterways Trust Fund, which falls under the advisory purview of the Board. The fund has depleted the balance and is now only sustained by current revenue flows. The Office of Management and Budget (OMB) and the Office of the Assistant Secretary of the Army (Civil Works) (ASA(CW) have directed that alternatives to the current Inland Waterways fuel tax be developed. Legislative and administrative changes to the fund will begin to be implemented during FY 2011. Proposed alternatives will require intensive coordination with the Board and stakeholder groups.

ACTIVITIES IN FY 2010: The FY 2010 appropriations included $335,000 for these activities. FY 2010 activities include Corps personnel costs to coordinate, attend, and provide analytical support for three scheduled meetings of the Board pursuant to their charter. Support also includes Board meeting logistics, including staff travel, clerical, printing, and related materials. Additional staff time is supporting a reevaluation of the financial basis of the Inland Waterways Trust Fund, which falls under the advisory purview of the Board. Corps personnel are working with the OMB and ASA (CW) to develop alternatives to the current Inland Waterway fuel tax.

PROPOSED ACTIVITIES FOR FY 2011: Proposed activities include Corps personnel costs to coordinate, attend, and provide analytical support for three meetings of the Board pursuant to their charter. Support will also include Board meeting logistics, including staff travel, clerical, printing, and related materials. Additional staff time will be required to support legislation and implementation of alternatives to the current Inland Waterways fuel tax, as directed by ASA(CW) and OMB. Proposed alternatives will require intensive coordination with the Board and inland navigation stakeholder groups.

APPROPRIATION TITLE: Construction – Fiscal Year 2011

Estuary Restoration Program (Title I of P.L. 106-457)

Allocation FY 2010	$1,000,000	Budget Amount for FY 2011	$5,000,000

AUTHORIZATION AND PROGRAM DESCRIPTION: The Estuary Restoration Act of 2000, Title I of P.L. 106-457, as amended, authorizes the Secretary to carry out estuary habitat restoration projects recommended for implementation by the Estuary Habitat Restoration Council and meeting various criteria. Each project must address restoration needs identified in an estuary habitat restoration plan, be consistent with the estuary habitat restoration strategy developed under the Act, include a monitoring plan that is consistent with the standards for monitoring developed under the Act and include satisfactory assurance from the non-Federal interests proposing the project that the non-Federal interest will have the capability to carry out items of local cooperation, including maintenance. Except when innovative technology is involved the Federal share may not exceed 65 percent of the cost of the project. Non-Federal interests shall provide lands, easements, rights-of-way and relocations and are responsible for all costs associated with operating, maintaining, replacing, repairing, and rehabilitating the projects.

ACTIVITIES: Three projects have completed construction, eleven projects, including five new projects recently approved for funding, are in various stages of implementation. Examples include a removal of invasive species and re-vegetation with native species in Florida estuaries, restoring oysters off the Texas coast, restoring more natural flow to a tidal creek in Massachusetts and restoring a filled tidal area in California. The quality of the proposals received continues to improve. As funds are available new solicitations for projects are announced and the FY 2011 funds will be used to support new projects selected from the proposals received. Healthy estuaries play an important role in the life cycles of many aquatic species with high commercial value from blue crabs to salmon. Healthy estuarine wetlands contribute to improved water quality and may aid in the reduction of flood risks. Recognizing the critical importance of estuaries for healthy coasts and the continued pressure increasing coastal populations place on these resources, the Act set an ambitious target of restoring 1,000,000 acres of estuary habitat by 2010. This demonstrates the need for estuary restoration projects and this funding will contribute to efforts towards achieving more sustainable estuarine ecosystems.

PROPOSED WORK FOR FY 2011: The $5,000,000 for Fiscal Year 2011 is to continue the program of estuary habitat restoration, primarily funding new projects.

REMAINING ITEMS

OPERATION AND MAINTENANCE

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

1. Operation and Maintenance

IPET/HPDC Lessons Learned Implementation to Improve Operation and Maintenance

Total Estimated Federal Cost	Allocation Prior to FY 2010	Allocation FY 2010	Budget FY 2011	Additional to Complete After FY 2011
62,000,000	4,980,000	0	8,000,000	47,697,000

SCOPE:
Following Hurricane Katrina, USACE commissioned two major assessments to determine what went wrong in New Orleans and why. The Interagency Performance Evaluation Taskforce (IPET) looked at the technical issues and the Hurricane Protection Decision Chronology (HPDC) looked at the policy and decision-making process over the past several decades that led to the system in place in New Orleans prior to Katrina. Those two assessments identified numerous gaps, weaknesses and lessons learned that USACE is now addressing. The work is being accomplished with four national teams comprised of multiple product/project specific teams. Closing gaps and incorporating lessons learned are critical to improve the public safety and performance of USACE's built infrastructure. These efforts will benefit the entire USACE portfolio of projects, Operation and Maintenance activities are:

OM - Theme 1 - Comprehensive Systems Approach (3,800,000)
Emphasizes an integrated, comprehensive and systems based approach incorporating anticipatory management to remain adaptable and sustainable over the project life cycle, placing the highest priority on protection of public health and safety. Update existing and develop new tools to provide analyses and decision support on a system basis; provide methods and guidance to incorporate adaptive management into decision making to account for dynamic processes such as sea level rise and climate change; implement a nationwide datum and subsidence standard consolidate and expand policies, methods, and technologies to achieve long-term sustainability of USACE infrastructure..

OM - Theme 2 – Risk Informed Decision Making (3,400,000)
Emphasizes integrated risk management through implementation of risk and reliability concepts to operations and major maintenance. Update methods, models guidance to assess engineering and operational reliability of local protection systems; fully develop risk analyses concepts, including social and environmental impacts; update levee certification guidance; apply innovative modeling methods used in IPET to identify failure causes due to soil conditions for other regions with levees of concern; develop capability to model the risk and reliability effects of surge and overtopping including any dynamic effects.

OM – Theme 3 - Communication of Risk to the Public (600,000)
Emphasizes clear and candid communication of risk both internally and externally, supporting risk-informed decision making over the project life cycle. Improve ways to characterize and communicate public health and safety for our built infrastructure. Conduct detailed review and revision of existing engineering and operations guidance to include risk communications. Apply new framework for existing projects that incorporates public involvement in risk reduction strategies.

OM - Theme 4 – Professional and Technical Expertise (200,000)
Emphasizes professionalism and technical competence to provide responsible and competent public service professionalism with life safety as a fundamental driver. Operating and maintaining USACE's aging infrastructure requires unique skill sets that differ from those needed for the planning and engineering of new projects. The O&M portion of this theme will include investments that will better equip staff competencies in the key areas of dam and levee safety as well as normal project operations.

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JUSTIFICATION:
USACE must improve its ability to provide safe, reliable projects working together as a system with increased economic and environmental benefits through an integrated, comprehensive, sustainable, and systems-based approach that places the highest priority on protection of public health and safety. A systems and risk-based approach to capture the impacts of incremental changes that result from natural, dynamic processes and human activities throughout the lifecycle, combined with more comprehensive review of projects, will allow USACE to more fully address risks due to flooding and coastal storms in their decision-making. USACE will increase emphasis on aligning federal, state, and local projects, programs and authorities for risk management; on making decisions collaboratively; on improving communication about residual risk, and on explaining the public's roles and shared responsibility for risk reduction across all missions over the entire project life cycle.

FY 2010 Accomplishments:
This program did not receive any funding from Congress in FY 2010; limited carryover funds kept the most critical work in motion but teams operated far below capacity and critically needed work was not accomplished. Significant accomplishments were achieved in FY09 in spite of very constrained funds. This program produced an unprecedented multi-agency report on climate change and water resource management to serve as the foundation for future changes and updated guidance in all four agencies (USACE, USGS, NOAA and Bureau of Reclamation). A large amount of built infrastructure will be impacted by sea-level variations in the future; investment decisions will need to consider that uncertainty. The program also made great strides in getting USACE projects across the nation on the correct vertical datum. A new tracking tool was deployed and training was provided across USACE to assist field personnel with getting their existing projects in compliance. The vertical datum issue was a key lesson learned from the Katrina experience. This program also provided risk communication training to more than 500 key USACE staff (Dam and Levee Safety Officers, Project and Resource Managers) across the nation to better equip USACE with communicating the risk associated with dams, levees and the floodplain in general. Managing risk must be a shared responsibility with the public, so USACE must do a better job of explaining the risk. Numerical modeling to support new guidance on I-walls was also completed. This will allow better decision making on the right course of action for the many I-walls in place across USACE. This program also began to link or upgrade existing O&M databases to be capable of tracking the effects of incremental changes over time and improving decision-making on a watershed scale; developed guidance for levee certification and incorporation of sea level change impacts.

FY 2011 Activities:
FY 2011 funding will continue building on work accomplished to respond to critical needs identified by IPET, HPDC, the National Academy of Science, the American Society of Civil Engineers' External Review Panel, and others in the wake of Hurricane Katrina. USACE will incorporate the new methods in programs and activities that enhance the operation, safety and sustainability of our built infrastructure based on those lessons learned. Specifically, FY 2011 funding will be used to continue updating of guidance for operations and maintenance; continue development of supporting technologies to improve the effectiveness of post-authorization evaluations and assessments of incremental change over time; enhance the use of adaptive management in project operation and maintenance through policies and development of a technical guide; address climate change impacts to water resources projects, with particular emphasis on developing the framework for how climate change and sea level change should be considered in making decisions for existing infrastructure investments; continue to implement the consistent nationwide project datum and associated subsidence standards and certification; develop policies and methods to infuse sustainability into practice; develop supporting methods and technologies to support the transformation of ICW from project element inspection to a risk-based system assessment; advance the understanding of risk and reliability modeling of surge and overtopping; continue to develop and deliver improved methods and guidance for better communication of risk to the public impacted by our infrastructure; and improve professional and technical competence in areas of particular importance to operations and maintenance.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Aquatic Nuisance Control Research

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$2,000,000
Appropriation for FY 2010	$ 656,000
Budget for FY 2011	$ 690,000
Increase of FY 2011 from FY 2010	$ 34,000

AUTHORIZATION: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (PL 101-646). The National Invasive Species Act of 1996 (PL 104-332) reauthorized and amended the Non-indigenous Aquatic Nuisance Prevention and Control Act.

JUSTIFICATION: Invasive species cost the public over $137 billion annually. It is now estimated that over 100 nuisance species are introduced into U.S. waters annually – many of which adversely impact operations and maintenance on Corps' facilities - as well as threaten valued natural resources. Zebra mussel impacts alone cost the public over $1billion annually. Methods of prevention and more effective, inexpensive methods of control of invasive species must be developed to prevent impacts to public facilities and protect valuable natural resources.

Research efforts have been expanded under the Aquatic Nuisance Species Research Program (ANSRP) to address invasive aquatic species that impact the nations' waterways infrastructure and associated resources. Methods for prevention, control, and restoration of natural resources will be developed. Control strategies are being developed for: (a) navigation structures, (b) hydropower and other utilities, (c) vessels and dredges, and (d) water treatment, irrigation, and other water control structures.

Research studies include: 1) The evaluation of potential control/barrier methods for Asian carps moving up the Mississippi River to the Great Lakes, 2) new techniques for control of zebra and quagga mussels moving westward past the 100th meridian, 3) Improved control methods for harmful algal blooms through new chemicals and life cycle sensitivity analysis, 4) Corps personnel training in recognition and control methods of ANS on Corps lands/waters, 5) Web-based regional lists of aquatic invasive species on Corps projects, and 6) Methods to reduce invasive species impacts to threatened and endangered species and restore natural habitat.

PROPOSED ACTIVITIES FOR FY 2011:

1. Evaluate alternate barrier techniques for restricting invasive fish movement in navigable waterways.
2. Determine swimming performance of juvenile bighead carp for use in predicting operating parameters for the electrical barrier.
3. Quantification of suckermouth catfish burrowing and impacts on shoreline erosion.
4. Characterize environmental factors which trigger production of algal toxin(s) and the subsequent development of Avian Vacuolar Myelinopathy (AVM) disease in waterfowl and their avian predators (e.g., American bald eagle).
5. Evaluate new algal management techniques to prevent AVM disease.
6. Determine thermal and water quality parameters affecting western distribution and spread of quagga and zebra mussels
7. Identify effective management strategies for New Zealand mud snail invasions.

ACCOMPLISHMENTS IN FY 2010:

1. Completed swimming performance studies on the invasive silver carp species; data was used to determine the optimal procedures for operation and maintenance of the Chicago Sanitary and Ship Canal electrical barrier.

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2. Provided improved guidance to COE Districts on electrical barrier operations and the feasibility for utilizing multiple barrier technologies to maximize protection against movement of Asian carp species.
3. Provided guidance to COE Districts on rapid response plan implementation for Asian carp movement through the Chicago Sanitary & Ship Canal.
4. Completed cost template and data analysis for reporting COE invasive species expenditures to OMB and the National Invasive Species Council.
5. Developed cell-line assays for quantifying AVM-algal toxin production.
6. Developed guidance on environmental habitat conditions associated with freshwater Dreissenids (quagga and zebra mussels).
7. Determined effectiveness of ultra-fine filtration studies as a management strategy against quagga and zebra mussels.
8. Consolidated three invasive species information systems (APIS, PMIS, and ANSIS) into one, web-based renamed the Invasive Species Information System (ISIS).
9. Provided updates and added new aquatic nuisance species profiles to the web-based ISIS.
10. Provided aquatic nuisance species technology transfer documents in the form of Technical Reports, Technical Notes, journal articles, web-based information systems, and workshops to COE Districts and Divisions.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Asset Management Program

SUMMARIZED FINANCIAL DATA:	
Estimated Annual Cost of Continuing Program	$ 4,750,000
Appropriation for FY 2010	$ 4,750,000
Budget for FY 2011	$ 4,750,000
Change in FY 2010 Over FY 2010	$ 0

AUTHORIZATION: EO 13327, "Federal Real Property Asset Management," Feb 2004; DOD (ASD ($C^{3}I$)) memorandum, 10 Jul 95, selecting the FEM system as a DoD migration system for Computerized Maintenance Management System [CMMS].

JUSTIFICATION:

The goal of the EO 13327 Real Property initiative is to ensure that property inventories are maintained at the right size, cost, and condition to support Corps of Engineers missions and objectives

The Corps of Engineers is responsible for more than 238 billion dollars of water resources infrastructure assets that provide a diverse and critical service to the nation. As service life of this aging infrastructure often extends beyond the design life, it is important to develop an integrated national plan for assessing those assets and an investment strategy for operation, maintenance, and rehabilitation to improve reliability, minimize risk, and meet projected service needs. Critical to a successful, adaptive asset management strategy is the establishment of the asset's condition and functional reliability along with the risks and consequences of poor performance or failure. Risk must be properly quantified and communicated to Congress and the public to ensure the safety of the citizens, the continuation of the nation's economic viability, and a commitment to the environment as it relates to water resources.

The Corps of Engineers has deployed the Facilities and Equipment Maintenance (FEM) system (a DoD standard) as one of many computerized maintenance management tools; it provides on-line interactive information for managing the life cycle activities and costs of assets, facilities, equipment, and parts. The Corps has also deployed a standard condition assessment methodology to better inform the prioritization of maintenance packages.

Funding Profile	Actual FY 2009	FY 2010	FY 2011
Asset Management (AM)	2,750,000	2,750,000	4,750,000
Facilities and Equipment Maintenance (FEM)	2,000,000	2,000,000	

1/ Funding incorporated into the Asset Management amount

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

PROPOSED ACTIVITIES FOR FY 2011:

Continue development and implementation of an operational condition assessment methodology for Corps of Engineers infrastructure, including but not limited to navigation and flood risk management assets, coastal structures, data integration support, and other logistical services. Continue collecting data and development of methods to characterize the overall relationship between condition, reliability, risk impact and regional consequences in order to identify best management practices and benchmarks for prioritizing maintenance and capital improvement investments._Continue addressing operation and maintenance performance measures in the real property information system. Provide the capability to track the use of performance measures for selected sets of assets for incorporation in routine decision-making and long range life cycle planning. Develop and implement business practices that will aid in right-sizing the real property inventory to meet organization mission. Perform baseline assessments for determining the condition of navigation and flood risk management structures.

ACCOMPLISHMENTS IN FY 2010:

Asset Management – Continued collection of real property performance measures in the real property information database and system. Continued to reconcile and close data gaps and performance measures and data validation. Improved inventory system quality and reporting capabilities to ensure ability to meet current inventory reporting requirements as well as new ones from the Department of Defense. Continued integration with necessary automated information systems. Implemented condition assessment methodologies across portfolio of infrastructure assets. Continued development and implementation of the asset management framework. Continued to meet OMB requirements and monitor progress by updating quarterly PMA scorecard. Developed metrics; identified best management practices and benchmarks to develop a risk based process for prioritizing maintenance and capital improvement investments. Integrated inventory information with condition assessment information into geospatial visualization tool.

FEM – Completed FEM deployment in all Regional Business Centers.. Complied with information technology security requirements, and business investment certifications under OMB 300, and DoD Business Enterprise Architecture under the National Defense Authorization Act of FY05. Developed performance metrics to measure effectiveness of FEM to enable asset management. Developed best business processes within O&M business lines and integrated with other Corps AIS processes. Continued enhancement planning with systems such as mobile technology to support other legacy systems and reliability centered maintenance.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Budget/Management Support for O&M Business Programs

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$6,792,000
Appropriation for FY 2009	$5,865.000
Budget for FY 2010	$6,792,000
Increase in FY 2010 from FY 2009	$927,000

Performance Based Budgeting Support Program $4,000,000

AUTHORIZATION: The Government Performance and Results Act of 1993 (GPRA) and under general authorities contained in various laws.

JUSTIFICATION: The President's management agenda and GPRA requires that the Corps implement performance based budgeting for Civil Works Operations and Maintenance, General Program. The Performance Based Budgeting Support Program addresses this requirement by the collection, management and distribution of data; seeking new methods for linking performance to annual budget requests; and for analyzing the potential economic impacts on customers of varying budget levels.

a. Civil Works Business Function Information: Provides critical data and information related to Civil Works project inventories, outputs and performance measures; and for the operational and strategic management of Corps' projects, programs, budget development and studies that directly support the Navigation, Hydropower, Recreation, Environment (Stewardship, Compliance, Restoration), Water Supply and Flood Risk Management Business Line missions. This information supports the Corps O&M program and is the sole source for the Corps, other Federal agencies, partners, stakeholders, and public. These funds include supporting the database management, integration, standardization, operation, enhancement, quality control, user assistance, training, compliance with security requirements and ACE-IT services. It is reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for $1,568,000 of the overall OMBIL-Plus costs. Lack of funding for this program would significantly reduce the Corps' ability to produce efficient, effective, and timely performance measures for budgeting, management and the PART.

b. Civil Works Performance Measurements: Work includes improvement of performance measurements to be incorporated into the budget decision-making process; support for the Office of Management & Budget's Performance Assessment Rating Tool (PART) initiative; and support for the future Corps budget preparation process. Efforts focus on the refinement of corporate performance principles; and program and project level performance measures that focus on anticipated performance and output at different levels of funding in accordance with the revised finance and accounting cost codes that now align with the O&M business processes - navigation, hydropower, flood risk management, recreation, water supply and environment. These measurements, at different organizational levels, provide the analytical basis to identify the incremental return on investment in Corps programs at various funding levels and to make adjustments in priorities both at the program and project levels concerning efficiency of facilities or services. Comparison of measurements among projects at all levels helps focus management attention on corrections of program or project deficiencies.

c. Civil Works Business Analysis: This task analyzes data using statistical and other analytical techniques and tools to uncover relationships among budget, expenditures and performance within and between Corps business processes. The relationships and statistics drawn from the data may provide evidence to support an increase in expenditures to improve performance. This task will also develop effective graphics to explain relationships found in the data and allow decision-makers to visualize cause and effect. This task links the data gathering, collection and distribution, and use of data in the decision-making process.

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PROPOSED ACTIVITIES FOR FY 2011: FY 2011 funds will provide continuing support of Civil Works O&M integrated information systems; centrally distributed performance measures, outputs and system inventory information; and evaluation of new measures. FY 2010 funds will also support enhanced development of output-oriented performance measures of the incremental return on investment in Corps Civil Works program areas, including acquisition and training in decision-making software. The funding provides enhanced support to flood risk management, environmental restoration, and the data entry modules for natural resources.

ACCOMPLISHMENTS IN PRIOR YEARS: Included were newly fielded centralized natural resource collection system and user's training in OMBIL data entry and access. The One-stop access for much of Civil Works budget performance information was expanded for budget submittals in lieu of separate data calls. Critical business and performance data was supplied to the recreation and environment-stewardship budget tools in FY05-FY08. A new data collection module was created in FY07 to support water supply as a new Civil Works business line,. Performance data was merged with P2 for use in the navigation budget development process in FY07 and FY08.

Recreation Management Support Program $1,650,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The recreation program serves almost 400 million recreation visitors and generates about $40 million in revenue annually. Visitors spend over $18 billion annually to engage in recreation at Corps projects; over 350,000 full and part time jobs are associated with this spending.

The RMSP supports the recreation program through the conduct of focused management studies to improve operational efficiencies and the provision of technical assistance, to include technology transfer and technology support and maintenance for recreation specific automated information systems. The RMSP supports strategic planning for and performance monitoring of the Corps recreation business program, subject to the Government Performance and Results Act (GPRA).

The RMSP has 3 major components, which together provide comprehensive support to the Corps Recreation Business Program:

1. Focused Management Studies. RMSP provides focused management studies and reports to acquire and analyze information about recreation trends, accessibility, emerging issues, user conflicts, visitor diversity, use fee impacts and similar elements affecting the Corps recreation program. Analyses are conducted to support the recreation area modernization program, implementing facility and service standards, and in similar product delivery improvement efforts. Information and technology transfer pursuant to these studies is funded by the RMSP. Ongoing trends analysis provides valuable data on which to base decisions about necessary short and long term adjustments to the program to meet public needs.

2. Management/Technical Assistance. RMSP provides technical assistance to the Recreation Community of Practice in the development of management tools, which quantify recreation program outputs and relate them to customer needs and budget allocations for the purpose of measuring performance. This includes gathering and analyzing information about customer satisfaction with the Corps recreation program. RMSP assures the field workforce is equipped with "state-of-the-art" skills and knowledge to deal with a rapidly changing public. RMSP provides technical support and maintenance of performance based budgeting tools, visitation monitoring and analysis systems, fee collection and reporting, economic analysis, facility inventory and condition assessment, and similar automated information programs. RMSP provides short-term assistance to projects in solving specific technical problems.

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3. Support to Recreation Program Strategic Planning. Funding to support the activities of the Recreation Leadership Advisory Team (RLAT) is included in this program. The RLAT is composed of representatives from the division, district and project levels of the Corps natural resources management program. It provides input, advice and support to the Corps strategic planning for the recreation business program.

PROPOSED ACTIVITIES FOR FY 2011: Minimum/Recommended Program: The Recreation Budget Evaluation System (RecBEST) will be refined to increase the capability to monitor and report Recreation performance measures and evaluate and prioritize budget submissions in response to OMB guidance. The Recreation module of the Natural Resource Management Gateway will be further developed to address high priority needs. Demonstrations will be conducted to identify and communicate the benefits of the Corps recreation program and improve effectiveness in addressing the needs of ethnic minority visitors. Emphasis will be placed on improving recreation use monitoring procedures that will be incorporated into recreation performance measures. Customer satisfaction survey methods and benchmarking capabilities will be refined and fully integrated into program performance measures. Technical support will be provided to field staff to implement improved procedures. Support will be provided to standing NRM committees and task forces including: Recreation Program Performance Improvement Initiative, Recreation Entrance Fee Policy Development, Partnerships Demonstration Program, Water Safety, Career Development etc. Support will be provided to Headquarters Recreation program staff regarding strategic planning, development of program evaluations and other high priority Headquarters initiatives. Provides resources for evaluation tasks associated with the implementation of the National Recreation Program Road Map.

ACCOMPLISHMENTS IN PRIOR YEARS:

Past products include Recreation Budget Evaluation System (RecBEST), visitation estimation methodology and data collection and reporting tools, economic impact methodology and analysis tools, customer satisfaction survey and benchmarking tools implemented at all CE projects, studies on recreation preferences of ethnic groups including cross-cultural communication issues, and support for development of a strategic context as a foundation for transitioning to a performance based environment, to include performance based budgeting. The Natural Resources Management Gateway was developed as a knowledge management tool for the NRM community and is compatible with other Corps KM and Community of Practice initiatives. The Corps Lakes Gateway was developed and provides information to millions of visitors annually on recreation opportunities at Corps projects. The Corps Lakes Gateway also delivers Corps recreation information to the interagency RecreationOneStop project in support the Administration's E-GOV initiative. Guidance and appropriate tools were developed to improve interpretive services associated with the CE recreation program that advance the public's understanding of the environment and the Corps Environmental Operating Principles. Support to Headquarters was provided to refine the recreation business program strategic plan, utilizing input from the RLAT and stakeholders. Goals and objectives were refined, and actions identified to achieve them. Innovative partnership approaches were developed and field guidance prepared to improve stakeholder participation. Stakeholder outreach was conducted to develop partnerships for strategic initiatives.

Stewardship Support Program $750,000

AUTHORIZATION: This program is conducted under the authority of ER 1130-2-540, Chapter 7.

JUSTIFICATION: The Stewardship Support Program (SSP) was established in FY 02 to provide broad support to Environment-Stewardship function at operating projects by assisting in the identification of national program needs, the development of new national program activities, strategic program planning, and the recommendation of national stewardship program funding priorities. Support will be provided in refining the Environment–Stewardship business program strategic

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plan and goals, and budget processes, to address the targeted outcomes of the overall Corps CW Strategic Plan, using input from the Stewardship Advisory Team, other associated Corps business programs and stakeholders. Goals and objectives have been refined, and actions will be identified to achieve them. Funding this program from a single source reflects the nationwide application and supports standardization in program direction and outputs.

The SSP supports the Environment–Stewardship program by addressing issues or initiatives that have a broad applicability to many USACE Civil Works projects. The three basic components of the SSP are:

(1) Focused Management Actions and Studies. These activities are to implement a course of action or practice within field office activities, a region, or nationwide. Examples of management actions might include developing/ assembling an array of management practices for establishing riparian habitat, or creating a forum to share common experiences, build teams, and disseminate information. Examples of management studies might include the riparian corridors research or conducting studies on management of threatened and endangered species.

(2) Policy Guidance and Management Support. Such activities relate to the development and/ or implementation of guidance. Examples of policy guidance included facilitating cooperative agreements with stewardship non-governmental organizations, or amending the annual Budget Engineer Circular to provide emphasis on conducting inventories of regionally or nationally significant resources.

(3) Information Exchange. These activities are designed to build, integrate, and share our knowledge base to support greater understanding of the environment and the impacts of program work.

PROPOSED ACTIVITIES FOR FY 2011:
The SSP will conduct focused management action studies and recommend guidance to address high priority program efficiency and effectiveness concerns, including responses to findings that result from an independent assessment of the stewardship business program area. Efforts will continue in support of performance based budgeting including further development of performance measures, development of strategies to improve program outputs and outcomes, and refinement of E-S BEST and related guidance to monitor program performance. Provides national support for two areas of strategic and performance priority within the Environmental Stewardship program. Identifying threats and significance of natural resources across the nation will provide a better evaluation and achievement of national strategic goals. Under the additional funding new technologies and national data sets will be utilized to more objectively and accurately evaluate threats and significance. Funding will also assist in the completion of the level one natural resources inventory and assessing conditions of project lands. Progress in recent years on developing standards, published protocols and web-based data entry programs have resulted in improvements in advancing completion of the inventories. Increased technical support to the field will provide training and guidance to assist in completion of the level one inventories during 2011. This funding will result in completion of one of the PART measures and allow focus of 2012 funding to be targeted to other high priority needs.

The SSP will also continue support of the Environment-Stewardship Community of Practice (CoP) including further development of the NRM Gateway for information and technology exchange. These activities will provide benefits in increased program effectiveness through implementation of assessment recommendations. Improved program performance will be facilitated through increased CoP access to best practices and policy guidance, and effective development and execution of performance based budgets.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple project) activities to improve the efficiency and cost effectiveness of the Environment-Stewardship business program has been employed, with subcommittee staff knowledge and concurrence, since the late 1990s for activities similar to those identified for FY 2010. Past products of the Stewardship Support Program include the initial set of

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Environment-Stewardship program performance measures, which are in accord with the Government Performance and Results Act and used to measure and monitor priority program outputs and outcomes; the Stewardship module of the Operations and Maintenance Business Information Link (OMBIL), which receives and stores selected data concerning the stewardship of project natural resources, and which provides for retrieval of that information by all levels of the Corps; the pilot version of the Environment-Stewardship Budget Evaluation System (E-S BEST) used to assist in developing budget scenarios and ranking budget proposals. Components of the Environment–Stewardship portion of the Natural Resources Management (NRM) Gateway, a knowledge management tool for the NRM community, have been completed and others are underway. Support to Headquarters was provided to develop and refine; the Environment-Stewardship business program strategic plan and 10-year development plan, the program management plan for the Environment-Stewardship Community of Practice, and the annual Environment-Stewardship program development guidance.

Optimization Tools for Navigation (OTN) Program $392,000

AUTHORIZATION: Related efforts are necessary to provide practical quantitative & predictive tools and data for minimizing and optimizing the costs of dredging of Federal navigation projects, leveraging development & improvement of channel design criteria across the Corps, the U.S. Navy, & other government\academic institutions. These efforts are essential to providing data & analysis for efficient & effective management of critical national waterborne navigation infrastructure.

JUSTIFICATION: To maintain the Nation's Federal navigable waterways, nearly 270 million cubic yards of material are dredged in the U.S. annually. In addition, the national "2020" plan for deeper & wider channels to support emerging commercial cargo vessel designs brings great uncertainty on credible prediction of maintenance requirements. Changing political, engineering, environmental, & demographic factors will increasingly influence project costs. Additionally, constrained appropriations to support the O&M dredging program have resulted in full channel dimensions being available less than an average of 35% of the time at the 59 highest use U.S. harbors, with even lesser availability at lower use projects. This impacts the reliability and economic competitiveness of U.S. ports and raised stakeholder objections that the surplus in the Harbor Maintenance Trust Fund is not being appropriated for the purposes intended. OMB has requested the Corps develop metrics that would help demonstrate the return-on-investment to justify increased dredging funds. The National Navigation Operation & Management Evaluation Assessment System (NNOMPEAS) is being developed with the Waterborne Commerce Statistics Center (WCSC) to demonstrate whether such a metric can be provided across all harbors and waterways. This tool will use domestic & foreign trade data to determine & analyze the loaded drafts of vessels of all recorded vessel calls for individual harbors and channels & will provide for estimation of transportation cost benefits foregone with reduction or absence of maintenance and will offer the potential to optimize maintenance dredging requirements for individual channel reaches & across much of the overall USACE dredging program. The NNOMPEAS initiative is supported by the HQ Navigation Business Line Manager and by ASA(CW). A companion tool being developed under the OTN program is the Channel Analysis Design Evaluation Tool (CADET), which will allow sophisticated vessel hull modeling not previously available. IWR is conducting this modeling activity jointly with ERDC & the U.S. Naval Academy (USNA). CADET will render advanced technologies for methods of analysis & compilation of new physical & numerically-generated data sets descriptive of vessel movement & response within confined waterways. Technological change & emerging vessel hull configurations in the shipping industry require prudent foresight & ongoing efforts to adequately plan for future maintenance dredging activities. Resulting datasets & analytical procedures will in turn be practically applied to more accurately determine channel dimension requirements associated with evolving or foreseeable vessel designs. This vessel hull modeling effort will also generate essential data on hull designs, vessel dynamics & channel configuration in order to optimize and minimize ongoing & future maintenance dredging requirements.

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PROPOSED ACTIVITIES FOR FY 2010: Proposed FY 11 funds will be used to accelerate the nationwide deployment of NNOMPEAS methodology and allow its use as a budgeting tool per the direction of HQ and OMB. These funds will also continue physical model hull construction & testing in collaboration with ERDC, NAVSEA-CARDEROC, the USNA, & for the coordination & technical support for vessel motion research with completion of the analysis being undertaken regarding U.S. Naval vessel requirements.

ACCOMPLISHMENTS IN PRIOR YEARS: FY 08 and FY 09 funds were used to work with WCSC and the South Atlantic Division to develop NNOMPEAS linkages between vessel call and vessel characteristic data sets, develop discrete channel segments and compile dredging costs and quantities for these segments at selected proof-of-concept harbors, and conduct test runs for these harbors. FY 09 funds also supported continued work of ERDC, CARDEROC, & IWR activities for improvements to CADET vessel hull modeling effort and initiation of physical testing of model hulls.

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Coastal Inlets Research Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$4,000,000
Appropriation for FY 2010	$2,851,000
Budget for FY 2011	$3,000,000
Change in FY 2011 from FY 2010	$ 149,000

AUTHORIZATION: Authorization for the Corps of Engineers' Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358: "The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the field of research and development."

JUSTIFICATION: In FY 2008, the Corps spent approximately $749 million in maintenance dredging of 190 million cubic yards from Federal navigation channels. Adjusted for inflation, dredging costs have increased approximately $6.1 million/year from FY 1963 through FY 2008 with increases in number, length, and depth of navigation channels (http://www.iwr.usace.army.mil/ndc/dredge/ddhisMsum.pdf). For the same period, also adjusted for inflation, dredging costs have increased from $1.53 to $3.19 per cubic yard and are likely to increase in the future due to increasing fuel prices. To be serviceable, harbors and ports must deepen and widen navigation channels to accommodate larger, more advanced international vessels. Dredging in and around the more than 600 coastal inlets and harbor channels is a significant portion of total dredging cost, as the age of stabilization and sediment-retaining structures such as jetties, interior revetments, and jetty spurs exceed 100 years. Changes in coastal inlet channels and jetties can have a profound effect on the integrity of the navigation structures, adjacent beaches, and estuary. Demand for regional sediment management practices and mitigation for engineering activities includes innovative creation of nearshore berms with dredged sand intended to provide a source of sand for nourish the adjacent beaches as well as renewable placement sites for O&M dredging. Determining proper design and siting of berms such that sand moves onshore, finer sediments are dispersed offshore, and re-deposition into the navigation channel is minimized requires three-dimensional characterization of hydrodynamics, sediment transport, and morphology change. Thus, navigation project O&M, structure integrity and implications of ongoing and future dredging actions must be considered within a sediment-sharing inlet system. The Corps needs advances in knowledge and tools to better predict future channel shoaling and design solutions to reduce dredging magnitudes and costs, while improving navigability of the nation's waterways, and maintaining the integrity of beaches and estuaries adjacent to coastal inlets. This applied research and development is necessary to provide quantitative and practical predictive tools and data for reducing the cost of dredging Federal navigation projects, maintaining inlet jetties, mitigating for engineering activities related to navigation channels, prioritizing maintenance options within budget constraints, and supporting national security efforts to protect waterways and ports.

PROPOSED ACTIVITIES FOR FY 2011:

- Develop and release Version 1.5 of the Channel Prioritization Tool (CPT) to include historical Automatic Identification System (AIS) ship-tracking data in select locations for showing the frequency with which Corps-maintained channels are transited by commercial shipping vessels. Inclusion of this data will necessitate coordination with the developers of the Lock Operators Management Application (LOMA), the *de facto* source within USACE for AIS data, currently under development in conjunction with the US Coast Guard. Also, the CPT will include three-dimensional channel definitions for improved linkage with shoaling predictions models and survey management software.
- Release Version 1.0 of the Coastal Structure Management, Analysis, and Ranking Tool (CSMART) web-based platform, with appropriate interface-sharing with web-based version of CPT. Both applications are designed to provide decision-support for prioritizing large portfolios of navigation structures and channels for maintenance funding, and as such, are able to utilize similar viewing portals and criteria-specification menus.

- Release beta version of three-dimensional (3D) Coastal Modeling System (CMS) and visualization toolbox within the Surface Water Modeling System (SMS) and wiki-based user manual. CMS3D represents vertical flows and subsequent transport processes by undertow, wave asymmetry, bottom streaming, and bottom boundary layer processes. These 3D processes are required to accurately calculate berm stability and movement for sediment with mixed grain size where the acting forces are nearly balanced.
- Develop beta version of the CMS Toolbox, a collection of analysis methods to provide pre- and post-processing for CMS calculations and visualization. Modules will include calculating sediment budgets and cross-shore variation in longshore sand transport from CMS calculations, and smoothing and preconditioning bathymetry data for input.
- Test and validate CMS for real-time wave and current forecasting at Humboldt Bay, CA, in collaboration with the National Weather Service.
- Develop guidance for nearshore berm design and placement criteria. Maintenance of navigation channels requires placement of dredged sediment to minimize cost and keep beach-quality sand in the nearshore littoral system. Such sediment may include mixed sand, silt, and mud, which are unsuitable for direct beach placement. Placement as nearshore berms is an attractive option that, if designed properly, facilitates regional sediment management through winnowing of fines and transport of beach sand to the down-drift beach.
- Release beta version and user's guide for Gencade, the next-generation shoreline change and inlet evolution model based on GENESIS, Cascade, and long-term Inlet Reservoir Model. Gencade enables O&M and regional sediment management activities at inlets and adjacent beaches, such as dredging of ebb shoals and placement on adjacent beaches, to be evaluated in a systematic manner within a regional context.
- Release beta version and user's guide for Sandis, a model describing evolution of the grain-size distribution of beach sediment related to onshore and nearshore placement of dredged material.
- Conduct tech-transfer workshops for Corps, consulting engineering companies, and academia on efficient coastal inlet channel design, nearshore berm design, advanced wave modeling for vessel transit and structure stability, and long-term morphology prediction of inlet O&M and navigation project modification for adjacent beaches and estuaries.

ACCOMPLISHMENTS IN FY 2010: The CIRP successfully completed all project requirements and released the following products:

- Version 1.0 of the Channel Prioritization Tool (CPT) was released for inland channels and is now available for all federal coastal and inland navigation channels in a web-based platform, including interaction with the Shoaling Toolbox (see below). The web-based version of CPT includes an interactive box-drawing feature for selection of reaches of interest via a Google Earth™ portal. Also included is a roll-up feature for reporting of channel depth-utilization at the project, District, and Division levels, as well as a commodity flow feature for showing the spatial extent of the movement of cargo through the national marine transportation infrastructure.
- Documented Coastal Modeling System (CMS) upgrades and new releases with Technical Notes, wiki-pages, and journal articles. Upgrades included methods to speed calculation time and improve accuracy: Non-Equilibrium Transport (NET), telescoping grid capability, and parallel processing. New capabilities included beta versions of Particle Tracking Model (PTM) for the CMS, salinity transport with CMS, non-linear wave-wave action; guidance for mixed-grain size simulations; and infragravity waves which are significant in representing inner harbor oscillations. CMS is the Corps' work-horse for numerically simulating combined wave, current, sediment transport, morphology change, and salinity transport near coastal inlet navigation channels, adjacent beaches, estuaries, and bays.

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- Tested alpha version of three-dimensional CMS (CMS3D) and visualization tool box at Matagorda Navigation Channel, TX, and Ocean Beach, CA. CMS3D accounts for vertical reversing flows and salinity intrusion with navigation channel deepening. Developed draft guidance for using 3D and protocols for seamless change between 2D and 3D.
- Field-tested new CMS features at coastal navigation projects and adjacent beaches: Noyo Harbor, CA (wave roller, three-dimensional processes, and onshore transport); Ocean Beach, CA (jetty permeability and CMS-PTM tracer simulations); Shark River Inlet, NJ (developing guidance for NET adaptation length); Barber's Point, HI (infragravity waves and permeable breakwater); and Pelekane Bay, HI (wave setup and flow transport through narrow channels).
- Released beta versions of three new toolboxes: Tidal Analysis Prediction (TAP) Toolbox; Inlet Engineering & Shoaling Toolbox (IEST), and Section 111 Toolbox. The TAP Toolbox includes routines for developing, analyzing, and forecasting tidal calculations. The IEST provides rapid analysis tools useful for reconnaissance-level studies and to compare with more detailed CMS calculations. The Section 111 Toolbox integrates tools and guidance for updating and conducting new Section 111 Studies (assessment of federal responsibility for damage caused by navigation projects), and provides a standard, defensible methodology Corps-wide.
- Upgraded Inlet Reservoir Model (IRM) to facilitate long-term calculations at inlet channels, shoals, and adjacent beaches. Tested alpha version at Onslow Beach, NC, and adjacent inlets.
- Linked Channel Shoaling Tools to CPT. Channel Shoaling Tools within the IEST include analytical calculation methods as well as site-specific historical channel shoaling data to evaluate past and estimate future channel shoaling. Users can estimate O&M requirements as a function of deepening, widening, or lengthening a navigation channel. The link to CPT allows the Corps to evaluate how these modifications or a delay in O&M change shoaling rates and the resulting vessel transit in a particular channel.
- Public release of wiki-based documentation for CMS and CIRP products and tools, including brief instructional video clips for application of new features within the CMS. User's guides and manuals change rapidly with upgrades to technology. Wiki-based (online) access allows guidance updates to be tracked and accurate with each improvement in model and tool release. The CIRP wiki is available from: http://cirp.usace.army.mil/wiki/ .
- Conducted two technology-transfer workshops on Coastal Inlets Research Program products, covering numerical models, engineering guidance, and field measurements. Published numerous peer-reviewed articles and technical reports. Publications and latest CIRP information is housed on http://cirp.wes.army.mil/cirp/cirp.html.

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Coastal Data Information Program (CDIP) (New)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$3,000,000
Appropriation for FY 2010	0
Budget for FY 2011	$3,000,000
Change in FY 2011 from FY 2010	$3,000,000

AUTHORITY: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to collect coastal field data is 33 USC 426a which originated with the River and Harbor Act of 1945, which originated in the River and Harbor Act of 1930. The latest Engineering Regulation governing the program is ER 1110-2-1406 dated 1990.

JUSTIFICATION: Ocean waves deliver energy to the coast and impact Corps projects and operations. Real-time wave observations are imperative for operational guidance of USACE dredging, navigation, maintenance, and emergency operations. High quality wave observations are also required for the design of beach and navigation projects, to implement Regional Sediment Management (RSM) strategies, to ground-truth numerical wave models and as boundary conditions for all USACE coastal modeling activities. Inaccurate and insufficient coastal wave data can result in operation and design problems for coastal navigation and storm damage reduction projects. Long-term and storm data are required to determine how climatic changes and extreme events will impact Corps' facilities, projects and mission operations.

Availability of high quality, long-term coastal wave observations varies widely with significant gaps in critical regions. For example, there were no deepwater directional wave measurements along the east coast of Florida during the 2004 hurricanes which would have been used to alert Corps and other emergency operation officials during the events, and for post-storm assessments. The same was true for Hurricane Katrina and the central Gulf Coast in 2005, a fact that hampered post-Katrina diagnostic efforts. The mid-Atlantic is similarly underserved, even though there are many authorized Corps projects that would benefit from high quality wave data. This general lack of available wave data was highlighted as a critical issue by the Coastal Working Group of the Hydraulics, Hydrology and Coastal community of Practice in a survey on data requirements in 2009.

The objective of the Coastal Data Information Program (CDIP) is to provide high-quality long-term coastal wave observations nationwide and to develop observations and tools for using wave and other data for managing coastal sediment, and to support sustainable coastal and navigation projects under a changing climate. CDIP is a primary Corps' contribution to the *Integrated Ocean Observing System* (IOOS) as outlined by the Administration's Ocean Action Plan and authorized in the Integrated Coastal and Ocean Observation System Act of 2009 (PL No. 111-11). IOOS is an interagency activity with NOAA as the lead agency. Participating agencies are requested to detail staff to the IOOS program office. Corps' participation in IOOS workshops, regional associations, and meetings helps to insure that the IOOS is serving Corps requirements and that Corps districts and divisions are both contributing to, and benefiting from IOOS real-time coastal data for use in planning, operations, environmental assessment, climate change and emergency response.

Gauging efforts are coordinated with the National Data Buoy Center (NDBC) of NOAA which maintains deep-water wave-measuring buoys. In FY09, the Interagency Working Group on Ocean Observations finalized the *National Operational Wave Observation Plan* developed by the USACE, in collaboration with the NOAA IOOS program office. The long-term goal of this plan is a scientific-based expansion of the nation's wave observation program from 181 to 296 locations. Under the plan, the Corps will eventually be responsible for the coastal wave measurement locations and for program oversight in partnership with NOAA.

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The Coastal Data Information Program was previously funded through the General Investigations program and via congressional directive. It has been operated in collaboration with the Scripps Institution of Oceanography through a Research Cooperative Agreement between ERDC's Coastal and Hydraulics Laboratory and the State of California (http://cdip.ucsd.edu). Previously, the Investigations supported CDIP collected coastal wave observations from 38 locations which were analyzed and made available online in real-time to the Corps, our partner agencies and the public. The popularity of the program is evident from the usage/data downloads of CDIP information. CDIP typically records 200,000 daily hits (600,000 during storms) and over 4 gigabytes of daily data downloads. Usage has been increasing 20-30% per year. Although the Investigations funded CDIP concentrated on the USA west coast, recent additions have expanded observational sites along the Atlantic and Gulf coasts.

High quality regional wave observations, combined with high quality beach mapping data allow detailed studies to be conducted relating wave energy delivery to sediment transport – studies critical to the development of tools required for implementing successful Regional Sediment Management (RSM) activities (shoreline protection, beach maintenance, coastal inlet dredging and related engineering activities). To accomplish these studies, coastal processes are monitored along a 110-mile-long littoral cell extending from the Mexican border to Long Beach in Southern California (http://cdip.ucsd.edu/SCBPS/homepage.shtml). Though environmentally and economically important, there are few data in existence that document long-, and short-term changes to the area. The region is characterized by narrow continental shelves, a swell-dominated wave climate and cliff-backed beaches. Monitoring began in FY02 and continues as a unique long-term program involving semi-annual airborne Lidar mapping and other techniques for determining seasonal beach and cliff variation combined with wave measurements and modeling to quantify the impact of coastal storms and El Nino events over multiple years. Lidar mapping has proven to be of significant value in the study of recent coastal hurricane impacts, and this study is providing a unique complement to East and Gulf coast data. The comprehensive nature of this monitoring, permit an analysis of the potential risk associated climate change along the west coast to be examined and modeled. This effort contributes new insight to ongoing RSM research activities, is critical to effective sand management in Southern California, and provides a fundamental resource for documenting and understanding the impacts of climate change to coastal activities. Data collected to date are very popular with some 150,000 web hits/month and the database framework developed is used by, and has been adopted by the Corps Los Angeles district to distribute their coastal data.

PROPOSED ACTIVITIES FOR FY 2011:

- Integrated Ocean Observing System. Support the activities of IOOS by the participating in the Interagency Working Group on Ocean Observations. Promote the involvement of Corps District and Division offices in their local IOOS regional associations through meetings and workshops. Continue the 50% Corps detail to the NOAA IOOS program office that started in FY10 and maintain a web presence for Corps IOOS activities.

- National Operational Wave Observation Plan Implementation. Coordinate interagency collaboration on directional wave measurements. This includes developing updating the national plan and coordination with the international wave measurement community under the governing body of Joint Oceanographic Commission on Oceanography and Marine Meteorology (JCOMM, http://www.jcomm.info/wet). JCOMM has adopted the Test & Evaluation goals of the National Operational Wave Observation Plan and is planning several pilot projects.

- Support existing wave measurements: This includes the 38 directional wave measurements contained in the USACE/CDIP array (about 20-percent of the total number of active wave measurement sites in the United States). This is a true 24/7 real-time operational system with continuous monitoring for station failure. Trained local field teams are alerted to recover and redeploy buoys as required. Collected data are quality controlled; products are generated for a large and diverse user community; data are distributed online to government agencies and the public. Data are archived and available to serve users requiring long-term data sets.

- Filling of the Coastal Subnet: The National Operational Wave Observation Plan identified four subnets of which the Corps is responsible for the two innermost subnets (inner-shelf and coastal). Filling the significant gaps in the existing wave measurement network, particularly the coastal subnet is a priority. The goal is strategically fill the gaps based on input from USACE Districts and in coordination with USACE programs (Regional Sediment Management, Coastal Inlets Research Program, etc.) and business lines (Navigation, Flood and Coastal Storm Damage Reduction, Emergency Response, etc.). This effort is an inter-governmental partnership activity as outlined in the National Operational Wave Observation Plan.

- Increase repair inventory. There is a need to maintain a repair/replacement inventory of about 30% of the number of deployed buoys. Recent deployments have stretched the system and left few buoys for use in repair and rotation. As a result, a high priority will be to rebuild the inventory of spare buoys and to continue upgrading existing buoys to use iridium satellite communications, eliminating the need for expensive shore stations and improving operational efficiency.

- New product development. As the influx of new wave measurement sites become active and the local user groups become aware of the data, the need to support a very diverse community becomes an important issue. Much like weather forecasting has evolved over the past four decades; new wave measurement product dissemination will be required. Collaboration and coordination derived from the users, outreach programs, talking to local agencies will provide guidance and stimulus for these new products that will yield a benefit to the program.

- Beach monitoring of Southern California beaches: This continuing program will include aerial LIDAR surveys in October 2010 and April 2011 along with beach monitoring surveys at Torrey Pines, Camp Pendleton, Cardiff and Solana Beach. High resolution surveys at Imperial Beach will be conducted in support of Los Angeles District beach nourishment project.

- Coastal Climate Variability and Risk: Using collected beach and wave data continue to investigate regional processes and the development of analyses and products useful for anticipating changes, and associated risk resulting from climate changes and extreme events. Transition developed technologies to USACE use.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

	Total Estimated Federal Cost	Allocation Prior to FY 2010	Allocation FY 2010	Budget FY 2011	Additional to Complete After FY 2011
Response to Climate Change at Corps Projects	Annual Program	600,000	2,408,000	5,000,000	5,000,000 Annual (5-year) Program

SCOPE:
Climate change has the potential to affect almost all of the missions of the U.S. Army Corps of Engineers (USACE). The objective of this effort is to partner with other Federal science and water management agencies, and other stakeholders, to develop and begin implementing practical, nationally consistent, and cost-effective approaches and policies to reduce potential vulnerabilities to the Nation's water infrastructure resulting from climate change and variability. The operations and water management control activities associated with the existing capital stock of USACE water projects provides the largest challenge given future climate change and variability. In order to ensure continued effective and efficient water operations in both the short (5-10 years) and longer term (10—50 Years), nationally consistent, but regionally tailored water management adaptation strategies and polices are needed. Such policies must balance project operations and water allocations within authorized project purposes, with changing water needs and climate driven changes to operating parameters, working in close coordination with a wide variety of intergovernmental stakeholders and partners. This effort will provide planning and engineering guidance to ensure future infrastructure is designed to be sustainable and robust to a range of potential changes. USACE has begun coordination with other Federal and State agencies on adaptations to climate change for water resources and coastal management, including the U.S. Geological Survey (USGS), U.S. Bureau of Reclamation (USBR), the U.S. Department of Transportation (USDOT), National Oceanic and Atmospheric Administration (NOAA), the Environmental Protection Agency (EPA) and other water managers such as the California Department of Water Resources (CaDWR). The proposed activity will provide a critical mass of resources to support the development of consistent policies among Federal agencies toward climate change. The following are some proposed activities:

- Workshops and pilot studies on methods and policies to address climate change for water management and environmental restoration.
- Continued revision of planning and engineering guidance on sea level rise and coastal storms.
- Evaluation of the impacts of climate change on ecosystems and the potential effects on USACE infrastructure and ecosystem restoration projects.
- Development of methods and policies to deal with hydrologic frequency analysis under changing conditions.
- Risk analysis for new unexpected conditions such as flood events from glacial dam outbursts and coastal erosion in Alaska.
- Support for Corps regulators on dealing with climate change in permitting decisions.
- Development of regional climate change impact assessments for water resources planning, particularly as applied to the existing portfolio of USACE projects.

JUSTIFICATION:
There is increasing concern among the public and the scientific community regarding climate change. In order to be responsive to these concerns, the Corps is committed to working closely with other Federal agencies; utilizing risk-based planning and a proactive adaptive management approach to infrastructure life-cycle management as a framework for Corps adaptation to climate change. Climate change may affect almost all USACE missions: flood risk management, inland navigation, ecosystem restoration, coastal protection, hydropower, recreation, and water supply. The regulatory program (404) is already being affected by concerns about climate change and some states have passed regulatory requirements regarding climate change. The Corps views these responsibilities from a life-cycle standpoint, which starts with planning processes, engineering and ecosystem management designs, and continues with development and implementation of project and system operating plans - all of which need to adapt to changing conditions. The Corps must remain a leader in developing and applying adaptive, life-cycle approaches and policies to address potential climate change impacts to ensure civil works infrastructure can respond to the Nation's needs, now and in the future.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

FY 2009 Accomplishments:

Fiscal Year 2009 accomplishments include:

- Completed a report with the U.S. Bureau of Reclamation (USBR), the U.S. Geological Society (USGS), and the National Oceanic and Atmospheric Administration (NOAA) on "Climate Change and Water Resources: A Federal Perspective" that provides the best available science to help water managers prepare for and adapt to the effects of climate change on the nation's water resources.
- Formed the Climate Change and Water Working Group with Reclamation, USGS, and NOAA and wrote a draft report to identify capability gaps on how climate information can be used in water management decision making.
- Developed a strategic plan for how USACE water managers can better adapt to potential climate changes; evaluated USACE authorities for potential flexibility in reservoir regulation for adapting to climate change.
- Completed an Engineer Circular on sea level change that provides interim guidance on how coastal engineers and planners should consider sea level change in plans and designs.
- Provided support to Corps HQ on climate change policy and on interagency climate change initiatives including Federal interagency climate change and water work group and climate change science program.
- Provided support to the National Integrated Drought Information System (NIDIS).

FY 2010 Accomplishments and Activities:

- Initiated collaboration with other science and resource agencies to evaluate the impacts of climate change on ecosystems and their potential effects on USACE infrastructure and ecosystem restoration projects; began development of guidance and policies for alleviating potential impacts
- In collaboration with other water agencies, initiated development of methods and policies to deal with hydrologic frequency analysis under changing conditions.
- Provided support for Corps regulatory on dealing with climate change in permitting decisions.
- In collaboration with other Federal agencies, developed regional climate change impact assessments for planning evaluation.
- Developed draft guidance for planning water resources, ecosystem restoration, and coastal management projects with climate uncertainty.
- Began review of effects of climate change in Northern regions, including development of risk analysis methods for new Alaska conditions, including coastal erosion.
- Initiated a vulnerability assessment of existing portfolio of USACE Civil Works systems and projects including both river basins and coastal regions.

FY 2011 Activities:

The following new activities are planned for FY 2011:

- Provide practical guidance and policies for planners and engineers to deal with hydrologic frequency analysis and water resources management under changing conditions.
- Continued vulnerability assessment of existing portfolio of USACE Civil Works systems and projects; assess vulnerability of ecosystems impacted by USACE projects and systems.
- Conduct pilot studies on river basin systems and coastal regions in coordination other Federal agencies and state and local stakeholders to assess vulnerability and adaptation strategies.
- Evaluate impacts of changes in sedimentation and evaporation on water management.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2011

Cultural Resources (NAGPRA/Curation)

SUMMARIZED FINANCIAL DATA:

Estimated Total (FY 1994– 2020) Program cost	$44,000,000
Appropriation for FY 2010	$2,500,000
Budget for FY 2011	$5,500,000
Increase in FY 2011 from FY 2010	$3,000,000

AUTHORIZATION: The Native American Graves Protection and Repatriation Act (NAGPRA) enacted on 16 November 1990 contains data gathering, reporting, consultation, repatriation, and permitting provisions that have near-term and long-term implications for Civil Works programs and projects.

JUSTIFICATION: The Native American Graves Protection and Repatriation Act (NAGPRA) addresses the recovery, treatment, and repatriation of Native American and Native Hawaiian cultural items by Federal agencies and museums. As defined by the Act, cultural items are human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony. In FY 1994, the Corps began the process of inventorying human remains and associated funerary objects and completing summaries as mandated by the legislation. In addition, the Corps is responsible for curation of cultural resource materials collected from its water resources development projects. A Mandatory Center of Expertise (MCX), located at the St. Louis District, provides overall management of the Corps NAGPRA programs and serves as an information source and a centralized base for curation compliance and contracting. The MCX will assure a consistent nationwide program for the curation of at least 46,255 cubic feet of artifacts collected from its water resources development projects (the most for any Federal agency) and at least 3,511 linear feet of associated records, IAW 36 CFR Part 79. Corps collections represent over 80 percent of the total DoD collections and are located in hundreds of curation facilities across the nation. The costs are to accomplish NAGPRA work and to fund MCX curation support to the districts. Funding this item will ensure full USACE compliance with NAGPRA legislation and expedite the stabilization, proper storage, and curation support to all Districts for typically fragile artifacts.

PROPOSED ACTIVITIES FOR FY 2011: The MCX and Corps Commands will continue inventorying Native American and Native Hawaiian human remains and associated funerary objects and complete summaries of unassociated funerary objects, sacred objects, and objects of cultural patrimony as mandated by legislation. Information will be made available through notices in the Federal Register. Through MCX provided funding, districts will continue to be engaged in formal consultation with tribes and organizations for the legislated purpose of repatriating cultural objects for which there are legitimate claims. The MCX will continue its chartered activities in support of other military services and DoD and implementation of long-term curation plan for USACE archeological collections (heritage assets). The MCX will also continue to work closely with USACE commands on the implementation of final guidelines and procedures for field collection of archeological materials and the long-term treatment of those collections. In this regard, the MCX will act as a source of expertise for processing and rehabilitation of USACE collections. Finally, the MCX will provide training curricula on the treatment of heritage assets and working in consultation with stakeholders, making them available to USACE and other appropriate DoD managers and decision makers. As Corps compliance with NAGPRA Sections 5–7 approaches completion, the MCX will refocus resources towards accelerated rehabilitation and long-term management of archeological artifacts collections and associated records at the greatest risk of deterioration or damage. MCX-CMAC will implement the initial phases of the curation task plan, which involves addressing the rehabilitation needs of USACE's most critical archeological collections. Additionally, MCX-CMAC will continue a veterans curation project that was originally funded in FY09 through the American Recovery and Reinvestment Act. The veterans project provides short-term employment and vocational training to wounded OIF/OEF veterans through the use and rehabilitation of U.S. Army Corps of Engineers archaeological collections.

ACCOMPLISHMENTS IN PRIOR YEARS: The MCX, located at the St. Louis District, was established to provide overall management of the Corps NAGPRA programs and has served as an information source, a centralized base for curation compliance and contracting. It has facilitated the assurance of consistent nationwide program implementation and operation, and in providing NAGPRA inventories, has assisted in establishing the extent of Corps holdings. Along with efforts to complete NAGPRA, the MCX began the process of effectively managing the Corps curation efforts. Corps reporting compliance with NAGPRA will approach approximately 85% by the start of FY11. A phased task plan for curation has been developed and is being implemented on at-risk collections.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Dredge McFARLAND Ready Reserve

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$12,000,000
Allocation for FY 2010	$11,404,000
Budget for FY 2011	$10,000,000

AUTHORIZATION: Section 2047(a) of the Water Resources Development Act (WRDA) of 2007, Federal Hopper Dredges, which amends Section 563, Hopper Dredge McFARLAND, of WRDA 1996, contains a provision requiring the Corps Hopper Dredge McFARLAND to be placed in a Ready Reserve status not earlier than 1 October 2009, and not later than 31 Dec 2009, and to use the vessel solely for urgent and emergency purposes in accordance with existing emergency response protocols.

JUSTIFICATION: Section 2047(a) requires that no individual project funds may be used to fund the dredge in its ready reserve status unless the dredge is specifically used in conjunction with a project. Prior to Fiscal Year (FY) 2010, the costs to operate the Hopper Dredge McFARLAND were charged to projects funded from the Operation and Maintenance appropriation, and were eligible for reimbursement from the Harbor Maintenance Trust Fund. The Hopper Dredge MCFARLAND was placed in a Ready Reserve status in December 2009 as required by Section 2047 of WRDA 2007.

PROPOSED ACTIVITIES FOR FY 2011: The Hopper Dredge McFARLAND will be required to perform emergency dredging work, but will not be assigned any scheduled hopper dredging work other than dredging tests in the Delaware River and Bay. The Hopper Dredge McFARLAND will remain at the dock, with sufficient crew to respond within 72 hours to any unforeseen requirement. The dredge will be maintained in a fully operational state and perform approximately 70 days of routine dredging operations to test equipment and keep the crew trained and prepared. The dredge will be placed in an active status in order to perform work in those instances when private industry fails to submit a responsive or responsible bid for advertised dredging, or where industry has failed to perform under an existing contract.

ACCOMPLISHMENTS IN PRIOR YEARS: The Hopper Dredge McFARLAND was in an "active" status and performed approximately 140 days of work along the East and Gulf Coasts moving upwards of 6 million cubic yards of dredged material annually through FY 2009. The Dredge McFARLAND was funded annually through FY 2009 using project funds on which the vessel worked.

APPROPRIATION TITLE: Operation and Maintenance – Fiscal Year 2011

Dredge WHEELER Ready Reserve

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$12,000,000
Allocation for FY 2010	$11,404,000
Budget for FY 2011	$11,000,000

AUTHORIZATION: Section 237 of the Water Resources Development Act of 1996 (WRDA 1996) contained a provision requiring the Corps Hopper Dredge WHEELER to be placed in a ready reserve status.

JUSTIFICATION: Section 237 requires that no individual project funds may be used to fund the dredge in its ready reserve status unless the dredge is specifically used in conjunction with a project. Prior to Fiscal Year (FY) 1998, the costs to operate the Hopper Dredge WHEELER were charged to projects funded from the Operation and Maintenance appropriation, and were eligible for reimbursement from the Harbor Maintenance Trust Fund. In FY 1998, the Hopper Dredge WHEELER was placed in a ready reserve status as required by the section 237of WRDA 1996.

PROPOSED ACTIVITIES FOR FY 2011: The Hopper Dredge WHEELER will remain in ready reserve status, which requires it to be able to perform emergency dredging work with no scheduled hopper dredging work assigned. The dredge will be placed in an active status in order to perform work in those instances when private industry fails to submit a responsive or responsible bid for advertised dredging, or where industry has failed to perform under an existing contract. A shipyard overhaul is scheduled for the first quarter of FY 2011.

ACCOMPLISHMENTS IN PRIOR YEARS: The Hopper Dredge WHEELER was kept at the dock, with sufficient crew to respond within 72 hours to any unforeseen requirement and to work for approximately six continuous weeks. The dredge was maintained in a fully operational state and periodically performed routine dredging operations to test equipment and keep the crew trained and prepared. The Hopper Dredge WHEELER performed approximately 70 days of training during the year. In almost every year since being placed in ready reserve status in 1998, the Hopper Dredge WHEELER was called upon to perform urgent dredging to assist industry dredges in restoring navigation channels and waterways.

Dredging Data and Lock Performance Monitoring System

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$1,595,000
Appropriation for FY 2010	1,093,000
Budget FY 2011	1,150,000
Increase of FY 2011 over FY 2010	57,000

AUTHORIZATION: These efforts are necessary to provide dredging and lock data for efficient management of Congressionally authorized navigation projects, to meet the performance requirements of the Presidents Management Agenda (PMA), to supply data for programs that are rated by the Program Assessment Rating Tool (PART) as well as to respond to specific public laws, including PL 96-269 (Minimum Dredge Fleet), PL 100-656 (Small Business Set-Aside), for meeting the Government Paperwork Elimination Act (GPEA) and Clinger-Cohen/IT Management Reform Act.

JUSTIFICATION:
a. **Dredging Data and Lock Performance Monitoring System:** The dredging and lock data collection and processing programs provide information for the Corps operational and strategic management decisions; for performance indicators of the navigation projects and programs; for the budget formulation process; and input for improvement studies in direct support to the Navigation Business Line mission. Information includes Corps performed and contracted dredging (location, quantity, cost etc.); all lock activities (barges and tons of commodities, chamber unavailability, processing times, delays etc.), and physical descriptions of all the Corps owned/operated locks. The funds support the database management, operation, enhancement, quality control, user assistance, training, compliance with security requirements and CEEIS services. Both systems are the sole source of dredging and lock data/information for the Corps, Federal government and industry. These databases are transactional systems within the Corps centralized Operations and Maintenance corporate information system. They are reported under OMBIL-Plus in ITIPS and the OMB 300b submittal accounting for $530,000 of the overall OMBIL-Plus costs for FY 2011.

b. **Future National Dredging and Port Requirements**. Technological change in the shipping industry is a continual process requiring ongoing analytical efforts to estimate the nation's future maintenance dredging needs. Update of current and future vessel characteristics, channel dimensions, commodity origins-destinations, vessel cost parameters, and other shipping data are needed to support the Corps maintenance dredging program. Tasks include tracking world trade and vessel fleet forecasts; analyses of current and projected trade patterns; assessing capability of planned and underway channel improvements to meet current and future demand, and the collection and associated analysis of dredging information and performance data in support of CW navigation program decisions and budget priorities.

PROPOSED ACTIVITIES FOR FY 2011: Continue to support the Corps Navigation responsibilities and be responsive to changing data needs by maintaining the Lock and Dredging information systems and data warehouse; providing essential upgrades, security and user support; developing additional data warehouse reports to support emerging data requirements for the performance based budget; working closely with the LOMA team to develop and deploy a navigation information portal for Corps and industry; and work with the Inland Marine Transportation System (IMTS) to monitor performance as implementation progresses. Coordinate and share data with other navigation information databases such as Silent Inspector and Asset Management to reduce data redundancy and provide more robust information. Continue tracking forecasts for the world vessel fleet, commodities and trade; expand voyage ports-of-call information for containerships; and continue analyses of marine transportation system current and future channel and infrastructure requirements for coastal harbors and inland waterways. Provide dredging and lock analytical, technical, and data support for Corps HQ, division and district offices.

ACCOMPLISHMENTS IN PRIOR YEARS: Provided lock and dredging data and information critical for navigation performance measures, budget preparation and prioritization, the assessment of dredge bidding competition, national and regional trends in dredging costs and quantity, the annual small business reports for SADBU, and lock availability and performance. Integrated two separate lock data input schemes into a single data input process. Performed operations, maintenance, system upgrades, security and user support for dredging and lock data systems. Initiated and deployed a program to automatically collect real-time lock data of timing events to significantly improve data quality while providing the lock operator improved situational awareness, more flexibility in his ability to manage workload and more time to perform the primary function of safely locking vessels. Conducted in-depth review of Dredging Information System and implemented changes in response to the GAO study of benefits and effects of the Corps dredge fleet. Modified the Dredging Information System to meet a HQ requirement to track ARRA funded dredging projects. An overview of the status of U.S. harbor and inland waterway improvement projects was updated, including funding and project schedules. World trade forecasts were updated and world fleet database was obtained. Technical and analytical assistance provided on channel and navigation infrastructure needs to HQ and Corps offices.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Dredging Operations and Environmental Research (DOER) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$7,000,000
Appropriation for FY 2010	$6,652,000
Budget for FY 2011	$7,000,000
Change in FY 2011 from FY 2010	$ 348,000

AUTHORIZATION: The Water Resources Development Acts of 1986, 1988, 1990, 1992, 1996, and 1999 contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandate a continuing need for innovative and enhanced technology.

JUSTIFICATION: The last comprehensive research effort on contaminated sediments and dredged material management was completed in 1978 under PL 91-611. More recent Water Resources Development Acts contained provisions addressing contaminated sediments in navigation channels, dredged material management, and beneficial uses that mandate a continuing need for innovative and advanced technology. Contaminant detection limits are now so low that sub-trace levels of toxic substances are identified. High profile contaminants continue to plague numerous Federal and permitted dredging projects. Traditional upland disposal areas have reached or are approaching capacity with few opportunities for new facilities. Aquatic placement of dredged material, which can provide both economic and environmental benefits, must be performed in a sustainable manner that addresses and manages the risks associated with contaminant exposures, the presence of threatened and endangered species, and other uses of the waterbody. Innovative management practices are required to ensure that environmental standards can be achieved for dredging operations in a way that minimizes costs while maximizing sustained environmental benefits from using dredged material to accomplish habitat and ecosystem restoration as well as other beneficial uses. Existing knowledge gaps in relevant physical, chemical, biological, and engineering processes lead to inefficient operations, higher management costs, and constrained management and beneficial use options. Performance standards and guidance for existing and improved practices are critical needs. Risk-based assessment and management practices are needed to ensure both the economic and environmental viability of navigation dredging operations. Beneficial use/reuse of dredged material is a priority and environmental resource protection is a mandate; however, costs are increasing due to the constraints noted above. Continued economic viability and security of the Nation will depend upon our ability to remove, manage and beneficially reuse dredged material in a cost-effective and environmentally responsible manner. Continued engineering and environmental innovation will be essential to manage costs and risks.

The DOER Program is an integral and highly beneficial component of the Corps' navigation dredging and environmental protection missions. Dredging and dredged material management must be accomplished within a climate of increased dredging workload, fewer placement sites, increased environmental constraints, and decreasing fiscal and manpower resources. Balancing environmental protection, restoration opportunities and critical economic needs, while maintaining and enhancing navigation infrastructure, presents significant technical challenges. The DOER program has validated innovative technologies for managing high profile contaminants and developed risk-based assessments that will significantly reduce testing costs at virtually all harbors. Assessment and management practices developed by DOER are needed to sustain both the economic and environmental benefits produced by the USACE navigation dredging program.

Major focus areas of DOER include: (1) operations technologies, (2) environmental resource protection, (3) dredged material management, and (4) risk.

PROPOSED ACTIVITIES FOR FY 2011:

Operations Technologies: The OT Focus Area will conduct R&D to: (1) identify and develop innovative dredging operations technologies that are needed to support, maintain and enhance navigation, (2) test these innovative (new) dredging technologies in locations and situations suitable to demonstrate performance in terms of defined metrics, and (3) ensure diffusion of well-performing technologies into the community of practice. Specific FY11 products include:

- Framework for implementing adaptive risk management for dredging operations
- Publish findings on (dredging) diesel fuel management strategies
- Standardized web-resident software and procedures for facilitating dredging data management, analysis, and visualization for enhancing operational efficiency
- Publish findings on the performance of a newly developed high resolution survey system for fluid mud and dredging residuals used for evaluating the condition of navigation channels and the environmental performance of dredging operations
- Develop Phase II-Silent Inspector monitoring system tools for calculation, visualization, and reporting on the efficiency of the national dredging program
- Demonstrate and evaluate innovative dredging technologies to meet operational and environmental requirements

Environmental Resource Protection: The ERP Focus Area will 1) initiate new investigations into management practices to protect endangered species during the construction and maintenance of navigation projects, with an emphasis on hydraulic entrainment, 2) apply new far-field dredging process models in association with actual projects to demonstrate their utility in assessing risk factors, 3) obtain field data to verify the modeling tools, 4) begin research to fill knowledge gaps related to status and recovery of Interior Least Tern, 5) fully integrate new online tools for Threatened and Endangered Species risk management, 6) begin assessments of underwater noise produced by various dredge types in relation to impacts on sensitive aquatic species, and 7) evaluate broader categories of beneficial use applications for habitat creation and restoration. Specific FY11 products include:

- Publish results of field studies documenting entrainment risk for riverine sturgeon
- Publish results of field studies characterizing habitat use of Piping Plover at coastal engineering project sites with recommendations for protective measures
- Publish findings related to improved technologies for detection of sturgeon and risk factors for sturgeon in relation to dredging operations
- Publish results of field trials of re-designed sea turtle rescue trawling gears and approaches
- Publish results documenting fishery resource use of dredged material placement sites and associated beneficial uses of dredged material
- Complete investigations of effects of suspended sediment exposure on early life history stages of key fish species
- Publish results of new simulation tools for predicting exposures of fish eggs and larvae to sediment suspended by dredging operations
- Publish results evaluating environmental risks associated with underwater noise produced by dredging operations
- Document opportunities for new aquatic beneficial use alternatives for dredged material

Dredged Material Management: The objective of this focus area is to 1) improve our understanding of dredging physical processes 2) improve our ability to predict fate of dredged material and 3) use our understanding and predictive capability to develop tools for dredged material management (DMM) on project and regional scales as well as life-cycle management. Specific products include:

- Publish results of investigations of flocculation and decay processes in suspended sediment plumes
- Publish results documenting wave-induced erosion processes at dredged material placement sites, including nearshore beneficial use sites.
- Complete dredging source term model interfaces in Surface Water Modeling System (SMS) used to predict suspended sediment plume date and transport
- Release v 2.0 of dredging toolbox in the SMS to enhance efficiency in data processing and analysis

- Refine applications and expand capabilities of the Particle Tracking Model to include predicted exposures and environmental risks to dredging operations
- Develop methods for characterizing dense fluid dynamics in continuous and discrete discharges (placement by pipeline and barge)
- Publish risk-based criteria for selecting reuse options of dredged material in Confined Disposal Facilities (CDFs)
- Publish guidance for sampling and testing protocols for sediments in CDFs in determining beneficial use options
- Publish and document innovative uses of dredged material extracted from freshwater channels.

Risk: The Risk Focus Area develops quantitative methods and tools to support analysis of the environmental, engineering and economic risks associated with navigation dredging and dredged material management. The use of risk analysis will facilitate quantitative, comparison-based decision making in the dredging program. The products of this focus area will provide defensible, quantitative support for risk-informed decision making to manage operational and environmental risks. Additional benefits of implementing these products will be reduced controversy, conflict, and project delays while simultaneously increasing the Corps' credibility with other agencies that embrace the risk management process. Specific FY11 products include:

- Guidance on passive sampling technologies using organism surrogates to measure uptake of chlorinated compounds
- Conceptual and decision models to guide use of dredged material to accomplish habitat and ecosystem restoration
- Published application of high-fidelity contaminant fate and transport model to improve the accuracy of risk assessments
- Refined model for evaluating contaminant bioaccumulation and risk to relevant aquatic and Threatened and Endangered Species
- Published descriptions of innovative biotechnology methods for contaminant analyses
- New, reduced-cost sediment bioaccumulation test methods
- Published findings linking contaminant mixtures in tissues with toxicity to support risk management decisions
- Design specifications for reactive caps and barriers for managing contaminated dredged material

ACCOMPLISHMENTS IN FY 2010:
The DOER Program successfully completed all of the project requirements and completed the following products:

1. **Operations Technologies**: Installed "DoIT" website for innovators to submit new dredging technologies and refined the identification/selection/demonstration process to facilitate evaluation and adoption of the well-performing innovations. Published results of diesel fuel additive performance tests and performed diesel fuel management strategy study. Completed Phase 1 development of an integrated dredging operations database and published guidance on its use. Published findings of an engineering evaluation of new "turtle-friendly" bed leveler designs. Developed and evaluated the performance of a new non-nuclear, high resolution survey system for fluid mud and dredging residuals. Developed and implemented new software application to facilitate analyses of overdepth dredging and published findings of overdepth dredging analysis for different types of dredges. Evaluated a field demonstration of Silent Inspector (automated dredge monitoring system) as a potential alternative payment basis for dredge contracts. Published system level findings of Phase I Silent Inspector trends/benefits tool development effort. Developed software application and users manual for dredged material placement site and pipeline dredge selection integration tool. Demonstrated innovative dredging technologies to meet operational and environmental requirements.

2. Environmental Resource Protection: Expanded evaluations of efficient protection measures for Threatened and Endangered Species to minimize costs and time delays associated with achieving regulatory compliance. Evaluated new frameworks for setting environmental windows for sea turtle protection. Completed field investigation (in collaboration with the NY District) of effectiveness of silt curtains as a navigation dredging management practice. Published results of studies related to habitat management and protection of bird species. Demonstrated new technologies for detection of protected sturgeon species in the vicinity of dredging projects to optimize project performance. Published findings of environmental benefits of open-water dredged material disposal options for providing fish habitat enhancement.

3. Dredged Material Management: Publicly released tools and models with improved accuracy and applicability for determining fate of material released during dredging operations and material eroded from open water placement sites. These new models are regional in scale, which is key to assessing beneficial uses of dredged material. Released improved models describing fluidized mud spread during barge or pipeline placement operations. Enhance Surface-water Modeling System (SMS) features for incorporating spatial data and large-domain hydrodynamic and wave models into dredged material fate models. Published and released tools to quantify exposures within SMS for use in risk assessment. Conducted workshops on dredging tools in SMS to promote wide dissemination of dredged material management tools and models. Released source term model for quantifying suspended sediment releases during hopper dredging. Released documents describing preliminary results for Confined Disposal Facility sampling protocols and risk assessment.

4. Risk: Published results of cost-effective surrogates for assessing contaminant bioavailability and toxicity in dredged material. Developed and published a U.S. application of the "Working with Nature" concept developed by the International Navigation Association as a means for promoting environmentally sustainable navigation infrastructure and operations. Improved models and design guidance for the use of advanced capping technologies as a cost-efficient alternative to upland management of contaminated sediments. Developed innovative treatment technology guidance for contaminated dredged material to reduce the operational and long-term costs of managing contaminated dredged material. Finalized development of faster/cheaper analytical methods for evaluating contaminant movement from sediment to water and within food webs. Expanded the development of risk-informed decision making methods to manage operational and environmental risks associated with navigation dredging.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Dredging Operations Technical Support (DOTS) Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$2,000,000
Appropriation for FY 2010	$1,901,000
Budget for FY 2011	$2,000,000
Change in FY 2011 from FY 2010	$ 99,000

AUTHORIZATION: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the filed of research and development.")

JUSTIFICATION: Maintenance of the nation's navigation infrastructure requires compliance with numerous complex environmental statutes and Presidential Executive Orders. The Dredging Operations Technical Support (DOTS) Program fosters a "one-door-to-the-Corps" clearinghouse for access to comprehensive information on technology related to navigation O&M functions, including technology demonstrations and training essential to all stakeholders involved in Federal and permitted navigation projects. DOTS is structured as a centralized source for technology transfer that maximizes cost effectiveness and facilitates expeditious and consistent implementation of national policies and laws based on complex technical requirements. The DOTS Program fosters application of state-of-the-art technologies and ongoing research results for high priority problems identified by field offices. Emerging environmental concerns often cause uncertainty and unanticipated difficulties in the administration of the Corps' navigation dredging program. The DOTS program's technology transfer function provides access to an extensive, up-to-date, consistent technology base whereby timely, proactive responses to technical issues can be made as they emerge. This approach promotes networking and solutions to common problems confronting the navigation dredging community. DOTS supports knowledge-based exchange of information throughout the interagency coordination process. Short-term work efforts to address generic Corps-wide technical problems encountered during maintenance of navigable waterways and infrastructure are major features of the DOTS Program. Technology transfer and demonstration of new techniques with potentially high returns on investment for management of Corps navigation maintenance projects are critical DOTS functions. By disseminating technically sound knowledge to field offices constrained by staff reductions and limited resources, the DOTS Program will continue to perform a critical technology transfer role in support of all O&M navigation projects. DOTS fosters productive relationships with other federal agencies with missions relevant to navigation, particularly the US Environmental Protection Agency, and academic institutions, including the National Academy of Sciences.

PROPOSED ACTIVITIES FOR FY 2011:

- Expanded support for technical responses to field offices encountering problematic navigation issues. Whereas DOTS has historically concentrated on dredging and dredged material placement, the program's resources have been increasingly requested by personnel engaged in many other navigation-relevant activities (e.g., safe inland navigation lock operations, coastal inlet sedimentation issues, navigation structure performance, etc.). Increasing demand for rapid technical advice continues to be constrained by available funding.
- Critical support of ongoing efforts to resolve expensive, controversial conflicts between navigation O&M activities and protection of Threatened and Endangered Species through effective interagency coordination and collaboration with credible, independent third parties. One example is sponsoring the American Bird Conservancy to mediate and determine most effective recovery strategies for the endangered Interior Least Tern. Separately, ongoing engagement with multiple agencies seeking improved management practices for protection of endangered sea turtles is yielding progress toward more flexible environmental windows and potentially substantial cost savings across multiple NAD, SAD, MVD, and SWD Districts. These efforts, which have high probabilities of long-term substantive cost savings to the O&M budget require expanded short-term investments.

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- Continued coordination with the Marine Board of the National Academy of Sciences with regard to navigation-relevant issues.
- Expanded support of mandated reporting to other Federal and international agencies with regard to dredged material placement in oceanic waters and costs of compliance foe navigation projects with the Endangered Species Act. DOTS has developed standardized, faster, accessible, and accurate web-based tools for satisfying these requirements. Ongoing efforts will refine these tools for expedited use by field office users.
- Expanded investment in training of Corps and regulatory agency staff in dredging and other navigation mission processes. Existing training materials that have become outdated will be revised. New opportunities for regional training exercises will be sought. Training of newly recruited Corps and regulatory agency personnel has significant payback in the form of conflict avoidance and project execution delays stemming from unfamiliarity with basic dredging processes and misperceptions. Education of personnel engaged in navigation project planning, implementation, operation, and maintenance has been identified as a critical limitation as demographics in the regulatory agencies change through pulses of retirement and recruitment.
- Continued expansion of web-based tools and access to existing knowledge pertaining to the broad navigation mission.

ACCOMPLISHMENTS IN PRIOR YEARS:

- Emphasis was placed on effective transfer of technology developed by the Corps and others engaged in maintenance and management of navigation structures and navigable waterways. Typical technology transfer topics include: management of Confined Disposal Facilities; management of contaminated dredged material; application of innovative risk-based technologies to assess contaminated dredged material; maintenance of coastal inlets and adjacent shorelines; shoreline stabilization and river training methodologies; assessment and management protocols for beneficial uses of dredged material; assessment of water quality issues based on historical compliance monitoring data; proactive analyses of dredge entrainment data for take of species associated with emerging concerns (e.g., horseshoe crabs); channel realignments; protection of threatened or endangered species; equipment selection; operational measures for protection of Threatened and Endangered Species; rational application of environmental windows and alternative best management practices; lock and dam maintenance needs; channel and harbor maintenance activities; ship simulation applications; and numerical modeling methods for resolution of engineering and environmental issues.

- A trend for increasing need for technical responses, evidenced by consistent growth in requests submitted by field offices on an annual basis, coincides with expansion of the DOTS mission to cover all navigation-related issues in addition to dredging and dredged material disposal.

- Personnel turnover due to retirement and attrition within the Corps and other regulatory agencies has created a growing demand for training in diverse technological areas. DOTS-sponsored training of Corps staff, personnel with regulatory authority over Corps navigation maintenance activities, and other stakeholders will convey the latest findings on environmental and engineering techniques associated with maintaining navigable waterways. Training topics include dredging and dredged material disposal; coastal and inland channel maintenance needs; water quality and related aquatic environmental issues; new and emerging techniques for accurate determination of compliance with environmental protection statutes regarding management of dredged material and other features of navigation projects; development and preparation of manuals jointly with the EPA that implement the inland and ocean disposal programs; and short-term work efforts to address generic Corps-wide technical dredging and dredged material management problems related to navigation projects. DOTS continues to support development of training materials on compliance with the Endangered Species Act for Corps field offices on a regional basis.

- DOTS will continue to fill a long-standing void with respect to outreach, providing a broad spectrum of educational materials related to the Corps' navigation mission. Relying on internet resources, this activity has rapidly become an extremely effective means of conveying comprehensive, accurate information to a broad audience, including students, educators, and the general public as well as professionals.

Appropriation Title: Operation and Maintenance – Fiscal Year 2010

Earthquake Hazards Reduction Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$270,000
Appropriation for FY 2010	270,000
Budget for FY 2011	270,000
Change in FY 2011 from FY 2010	0

AUTHORIZATION: This program is being conducted under the authority of PL 101-614, November 1990, National Earthquake Hazards Reduction Program Re-authorization Act and individual project authorizations for maintaining safety of personnel and emergency response capability.

JUSTIFICATION: The purpose of this program is to respond to the requirements of PL 101-614, National Earthquake Hazards Reduction Program (NEHRP) and Executive Order (EO) 12941, Seismic Safety of Existing Federal Buildings. The EO directs all Federal departments and agencies to develop an inventory of their owned and leased buildings and an estimate of the cost of mitigating unacceptable seismic risks in their buildings. The objective of PL 101-614 is to establish and initiate for buildings and lifelines a systematic approach to reducing loss of life, injuries, and economic costs resulting from earthquakes in the United States. Lifelines are defined as public works and utility systems.

PROPOSED ACTIVITIES FOR FY 2011: Continue development of mitigation program options to meet the executive order requirements and the legal opinion concerns, refine the develop technical seismic building evaluation criteria, refine the develop programmatic seismic criteria, refine the develop guidance or the seismic evaluation and risk mitigation of lifeline facilities, and development of building and powerhouse mitigation plan options, improve information transfer by use of videoconference calls and development of a seismic web site, and develop reports on selected study items. USACE has a legal opinion that indicates that once we have identified seismically vulnerable structures we are legally responsible to develop a plan to mitigate these vulnerabilities. Funds will be used to improve seismic information and requirement transfer, adjust the agency specific mitigation plan (if necessary), provide the tools for implementation of the program that would lead to supportable, defensible mitigation decisions, provide assistance to districts in the development of mitigation concepts and designs, provide support to HQUSACE in oversight and management of the mitigation program, provide technical support to HQUSACE, maintain technical seismic expertise, identify potential cost savings areas for study, develop guidance for additional lifeline systems not previously covered in commercially available standards or existing USACE guidance, develop guidance for operations personnel, develop a mitigation plan for the USACE lifelines, update and maintain database. The development and updating of guidance for the seismic evaluation and risk mitigation of lifeline facilities will continue as well.

ACCOMPLISHMENTS IN PRIOR YEARS: Over 12,000 owned buildings and powerhouses were inventoried and data collected, seismic screenings of over 700 buildings in all seismic regions, seismic evaluations were performed on over 200 buildings and powerhouses in various geographic regions primarily in high and moderate seismic regions, development of reports for FEMA to be forwarded to Congress on both buildings and powerhouses, development of seismic evaluation guidance for buildings and lifelines: building evaluation criteria, powerhouse evaluation criteria, lifeline criteria for intake towers, navigation locks, and powerhouses, two seismic evaluation seminars for district personnel, technical support to the districts in accomplishing the evaluations, over 30 rehabilitation case studies including seismic mitigation cost estimates (rehabilitation, replacement, or demolition) for buildings, over 25 rehabilitation cost estimate studies for structural or nonstructural powerhouse deficiencies, inventory of USACE owned buildings including powerhouse superstructures, inventory of USACE leased buildings with estimated populations and recommendations for leasing procedures, development of mitigation program options to meet the executive order requirements and the legal opinion concerns, develop technical seismic building evaluation criteria, develop programmatic seismic criteria, develop guidance for the seismic evaluation and risk mitigation of lifeline facilities, develop associated costs studies to include asbestos and lead based paint costs associated with rehabilitation, adapt the building and powerhouse inventory database to an Oracle system compatible with the Operations and Maintenance Business Information Link (OMBIL) program and revise building report to reflect the new criteria.

Appropriation Title: Operation and Maintenance, General – Fiscal Year 2011

Facility Protection

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$ 12,000,000
Appropriation for FY 2010	$ 7,000,000
Budget for FY 2011	$ 6,500,000

AUTHORIZATION: The Energy and Water Development Appropriations Act, 2002 (PL 107-66), Consolidated Appropriations Resolution 2003 (PL 108-7), Energy and Water Development Appropriations Act 2004 (PL 108-137), Consolidated Appropriations Resolution 2005 (PL 108-447), Energy and Water Development Appropriations Act 2006 (PL 109-103), and the President's Budget proposes similar authorization for FY 2007.

JUSTIFICATION: The goal of the U.S. Army Corps of Engineers (USACE) Critical Infrastructure Protection & Resilience (CIPR) Program is to achieve a more secure and more resilient civil works critical infrastructure by enhancing its protection in order to prevent, deter, or mitigate the effects of manmade incidents and improve preparedness, response, and rapid recovery in the event of an attack, natural disaster, and other emergencies. The CIPR program supports the National Infrastructure Protection Plan and the National Response Framework, and it is directly aligned with the Dams Sector-Specific Plan. The objectives of the CIPR program include assessing and prioritizing Corps civil works critical infrastructure by implementing a portfolio-wide risk assessment framework. The CIPR program focus is not necessarily facility specific, as it addresses portfolio-wide resilience-enhancing efforts. This holistic, integrated framework is facilitated through the implementation of system-wide and asset-specific integrated actions for enhanced protection and resilience at USACE critical infrastructure facilities. The goals of the CIPR program are to develop, implement and sustain an integrated risk-based assessment & management framework for Corps civil works critical infrastructure; to assess and prioritize Corps civil works critical infrastructure by developing and implementing a portfolio-wide risk assessment approach; and, to improve the risk profile of Corps civil works critical infrastructure. These goals will be attained by developing methodologies tools, and solutions to address key vulnerabilities to manmade incidents, implementing effective programs to minimize consequences, improving the response and recovery capabilities using an all-hazards approach, and prioritizing life-cycle investments.

PROPOSED ACTIVITIES FOR FY 2011:

- Conduct consequence-based top screening implementation for the identification and prioritization of USACE critical infrastructure (dams and locks) facilities.
- Develop multiple-asset regional exercise efforts supporting the development of integrated regional strategies to improve disaster resilience and preparedness efforts along the same river basin.
- Develop consequence analysis and system-based interdependency assessment of critical projects.
- Develop advanced modeling and simulation for critical infrastructure.
- Develop portfolio-wide conditional risk assessment pilot at critical projects.

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ACCOMPLISHMENTS IN FY 2010:

- Initiated the development of a conditional risk assessment methodology for critical projects.
- Conducted regional resilience exercise-based efforts involving multiple facilities along the same river basin supporting the development of integrated regional strategies to improve disaster resilience and preparedness efforts.
- Implemented a Consequence-Based Top Screening (CTS) methodology for dams at USACE critical projects. The CTS will support prioritization efforts at the Dams Sector level. The CTS tool will assist to identify those facilities that could reach the most severe consequences at the national level (critical impacts to the Nation's public health and safety, economic, and/or national security).
- In collaboration with DHS, developed targeted summaries (Comprehensive Facility Reports) of key information on selected dams and locks of regional or national significance to facilitate quick regional impact assessment reporting for natural hazards and manmade incidents.
- Continued improvement of predictive damage assessment tools of water-backed embankment dams from explosive loading using data from full-scale and reduce-scale experiments
- Conducted small- and large-scale experiments using embankment, concrete dams and navigation lock models to evaluate blast-induce damage under crest- and water-side attack scenarios.
- Collaborated in interagency efforts focused on watershed basin analysis studies to analyze interdependent cascading economic impacts associated with an interruption on the inland waterway system.
- Continued interagency collaboration with the DHS Dams Sector-Specific Agency and other Dams Sector stakeholders.
- Supported additional requirements associated with surge in security measures at USACE critical projects due to increased threat levels.
- Coordinated with DHS the implementation of the Enhanced Critical Infrastructure Protection program at USACE projects.

APPROPRIATION TITLE: Operation and Maintenance, Fiscal Year 2011

FERC Hydropower Coordination

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	$ 3,000,000
Appropriation for FY 2010	$ 2,851,000
Budget for FY 2011	$ 3,000,000
Change in FY 2011 from FY 2010	$ 149,000

BACKGROUND: The Corps Engineering Regulation 1110-2-1454 states in part, "When a non-Federal hydropower plant is licensed by the Federal Energy Regulatory Commission (FERC) for construction at a Corps project, the licensee will be required to reimburse the Corps directly for all reasonable costs associated with the Corps review and approval of the final design, construction, plans, specifications, and inspection of the construction." As a consequence of this guidance, the Corps has been collecting and expending funds for many years for these activities from FERC licensees who have built, owned and operated hydropower facilities at Corps projects. However, in June 2006, the Office of Counsel, HQUSACE, advised that the Federal Power Act, as amended, does not provide the necessary authority for the Corps to expend funds received directly from FERC licensees. The Office of Counsel went on to say that the Corps must instead, deposit the funds in the Treasury's Miscellaneous Receipts account and must rely on annual appropriations to carry out its responsibilities under the Federal Power Act.

JUSTIFICATION: The Office of Counsel, HQUSACE, determination in June 2006, that the Corps did not have the legal authority to expend funds received directly from FERC licensees, has resulted in the Corps relying on the annual budget process and annual Congressional appropriations for the funds necessary to carry out its responsibilities under the Federal Power Act.

PROPOSED ACTIVITY FOR FY 2011: FY2011 funding will initiate coordination activities with FERC permit holders and licensees in more than 15 Corps districts. These coordination activities will provide support to FERC permit holders and licensees to ensure that all Corps statutory requirements are met and that there will be no infringement upon the Corps' authorized purposes by the proposed non-Federal development.

Appropriation Title: Operation and Maintenance, General -- Fiscal Year 2011

Fish & Wildlife Operating Fish Hatchery Reimbursement (New)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$3,800,000
Appropriation for FY 2010	$4,467,000
Budget for FY 2011	$3,800,000
Change of FY 2011 from FY 2010	($667,000)

AUTHORIZATION: This program is a new line item added by House Report 111-278, dated September 30, 2009.

JUSTIFICATION: The U.S. Fish and Wildlife Service (USFWS) was authorized by Congress in 2008 to seek reimbursement from the Corps of Engineers for O&M costs incurred by National Fish Hatchery System for "de facto" mitigation of certain Corps dam projects which typically predated the National Environmental Policy Act. This resulted in a specific line item authorization in the Corps FY10 budget (see above).

PROPOSED ACTIVITIES FOR FY 2011:
The 2011 funding will be utilized to reimburse USFWS for National Fish Hatchery (NFH) O&M related to "de facto" mitigation of Corps dams.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Great Lakes Tributary Model

SUMMARIZED FINANCIAL DATA:

Estimated Total Program Cost	$14,000,000
Budget for FY 2010	1,200,000
Appropriation for FY 2010	1,140,000
Budget for FY 2011	1,200,000
Increase of FY 2011 from FY 2010	60,000

AUTHORIZATION: Section 516(e), Water Resources Development Act (WRDA) of 1996, as amended by Section 334, WRDA of 2000 and Section 5013, WRDA of 2007.

JUSTIFICATION: Under this authority, the Corps has developed sediment transport models for tributaries to the Great Lakes that discharge to Federal navigation channels or Areas of Concern (AOCs). These models are being developed to assist state and local resource agencies evaluating alternatives for soil conservation and nonpoint source pollution prevention in the tributary watersheds. The ultimate goal is to support state and local measures that will reduce the loading of sediments and pollutants to navigation channels and AOCs, and thereby reduce the costs for navigation maintenance and sediment remediation. This program supports the Administration's initiative for the restoration of the Great Lakes and the Strategy developed by the Great Lakes Regional Collaboration under Executive Order 13340.

PROPOSED ACTITIVITIES FOR FY 2011: FY 2011 funds will be used to continue or complete development of models at the following tributaries (Waukegan River, IL; Knife River, MN; St. Louis River, MN/WI; Ontonagon River, MI; Rouge River, MI; Blanchard River, OH; Lower Auglaize River, OH; Tiffin River, OH; Oak Orchard River, NY; Manitowoc River, MI, and; Siskiwit River, WI) and continue development of Internet-based modeling tools that may be utilized by local agencies and stakeholders for sub-watershed evaluations. Districts will provide limited, follow-up technical support to state and local partners that are using models developed under this program to reduce loadings of sediments and contaminants to Great Lakes tributaries, thereby reducing future dredging requirements at Federal navigation channels and promoting the restoration of beneficial uses at Great Lakes Areas of Concern.

ACCOMPLISHMENTS IN PRIOR YEARS: Models and related watershed planning tools have been completed for over 20 tributaries (Grand Calumet River, IN; Trail Creek, IN; Burns Waterway, IN; Battle Creek, MI; Saginaw River, MI; St. Joseph River, MI; Clinton River, MI; Grand River, MI; Nemadji River, MN/WI; Buffalo River, NY; Cayuga Creek, NY; Eighteenmile Creek, NY; Genesee River, NY; Niagara River, NY; Cattaraugus Creek, NY; Grand River, OH; Upper Auglaize River, OH; Black River, OH; Cuyahoga River, OH; Mill and Cascade Creeks, PA; Menomonee River, WI). Models are being utilized by state and local governments to support decision making on: agricultural and forestry practices; development of Total Maximum Daily Loads (TMDLs) for nonpoint source pollution control; prioritization of conservation practices; management of urban development, and; design of stream restoration projects. This program has enhanced the capabilities of state and local governments to manage programs that reduce the loading of sediments and levels of contaminated in tributaries to the Great Lakes.

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Global Change Sustainability (New)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program		$10,000,000
Appropriation for FY 2010		0
Budget for FY 2011	10,000,0	00
Increase of FY 2011 from FY 2010	10,000,0	00

AUTHORIZATION: Executive Order 13514, October 2009, requires all Federal Agencies to establish an integrated strategy towards sustainability in the Federal Government and to achieve targeted reductions in greenhouse gas (GHG) emissions.

JUSTIFICATION: It is now clear that global changes, including demographic shifts, changing land use/land cover, climate change, and changing social values and economic conditions, represent complex system components that are understood to varying degrees, sometimes confounding each other, and combining in unpredictable ways to result in potentially surprising or abrupt changes that can pose a threat to public health and safety and the Nation's water resources infrastructure and natural ecosystems. The existing paradigm based on an assumption of climate "stationarity" (the future will look like the past) which underlies USACE Civil Works planning, design and operations must shift to a "changing climate" paradigm based on the recognition of "non-stationarity" that is more representative of these global changes if USACE is to continue providing sustainable, resilient, and robust water resources management projects and services for the Nation. This program will ensure the sustainability and resilience of the build infrastructure and the natural environment by providing a proactive, nationally consistent, but regionally sensitive, framework of actions that will reduce the costs of global change in the future, as it is safer and more cost-effective to assess, plan and prioritize now for adaptation within an integrated water resources management context, rather than simply reacting on an ad hoc basis to future impacts as they emerge. The planning and management of a portfolio of sustainable water resources projects under the uncertainty of a "changing climate" paradigm must be informed by the data and information required to quantify cumulative risks, along with the methods and analytical tools needed to assess the interaction between sectoral impacts, improve the understanding of regional differences, identify sources of uncertainty, evaluate impacts to both a broad spectrum of existing water resources and marine transportation systems and ecosystems, while benefiting from an increased level of intergovernmental collaboration in global change science, engineering, and policy.

The sustainability and effective delivery of water resources services across the entire Civil Works mission, in conjunction with obligations imposed by Executive Order 13514, including the designation of the ASA(CW) as Senior Sustainability Officer for the Civil Works program, require USACE to adopt and implement a comprehensive strategy to address the effects of global processes on the sustainability and performance of USACE projects and systems, and to adjust and inform decision-making to ensure resilience and reduce vulnerabilities to observed and future (both predicted and unexpected) changes. We now have sufficient understanding to begin to apply global change adaptation and mitigation measures at a local to regional scale based on the best available science, continuing testing and refining our knowledge through risk analysis and adaptive management. We must begin implementation from the bottom-up, concurrently working top-down linking climate and hydrologic models. Immediate needs include adaptive and flexible water resources management that focuses on meeting contemporary challenges and the needs of the future, rather than the past; revising drought contingency plans and water control manuals to account for global changes; infusing best available science into the evaluation and adaptive management of aquatic ecosystems challenged by global change; supporting the Sustainable Rivers partnership (SRP) between USACE and The Nature Conservancy (TNC) focusing on environmental flows and river restoration needs for healthy ecosystems; informing USACE efforts to inventory and reduce greenhouse gas emissions; preparing a methodology and field guidance for the use of downscaled global circulation models; and demonstrating and piloting new methods, technologies, and policies to provide resilience in the face of global and climate change.

USACE recognizes that no one agency can effectively meet the challenges posed by global change. Therefore, this program includes a robust communication strategy and active collaboration with other Federal and State agencies and stakeholders in the conduct of this program.

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PROPOSED FY 2011 ACTIVITIES: There is increasing concern among the public and the scientific community regarding the effects of dynamic processes and global changes on all USACE missions: flood risk management, inland navigation, deep-draft ports and harbors, aquatic ecosystem restoration, coastal shore protection, hydropower, recreation, water supply, and environmental stewardship. Project operations must adapt to changing conditions in a sustainable manner that emphasizes life safety and the Federal investment in water resources infrastructure that meets the Nation's needs, now and in the future. USACE is committed to working closely with other Federal agencies to develop and implement risk-based planning and proactive adaptation and mitigation management approaches based on the best available science that recognize the dynamic and complex nature of the challenges posed by global change. Proposed FY2011 activities include:

- Update drought contingency plans at USACE reservoirs to take into account current climate science and other global changes
- Collaborate with Federal, state and local agencies to develop management strategies for dealing with sea level change and changes in coastal storm intensity.
- Develop and pilot test a consistent methodology for the use of downscaled models in a location with subtle climate change signals and changing socio-economic conditions.
- Conduct a pilot project to evaluate the nonstationary effects of global and climate change in the upper Midwest on USACE planning, design, and operations.
- Support implementation of the CEQ National Strategy for Climate Change Adaptation and develop, refine and implement nationally consistent approaches for adaptation to global change based on an IWRM framework.
- Develop and initiate a Communications Strategy which will provide USACE offices with the consistent policy and technical information needed to build awareness, inform and educate the broad range of stakeholders at multiple layers, within and external of government, which need to be involved to ensure the resiliency of the built infrastructure and the sustainability of the natural environment.
- Pilot and demonstrate practical revisions to water control manuals, project operations, and ecosystem and natural resources management to provide resilience in the face of climate change.
- Evaluate the potential for revised reservoir reallocations and re-operations to address global change affecting flood damage reduction, hydropower, water supply, recreation and environmental flows, including recommendations to Congress where additional authority is required.
- Conduct Sustainable Rivers Program demonstration projects, prioritized in partnership with the TNC and other stakeholders, and including USACE-TNC collaboration on the refinement of evaluation methods and environmental values/benefits based on ecological services and ecosystem needs.
- Develop greenhouse gas emissions inventory methods, conduct baseline inventories of Scope 1, 2, and 3 emissions, and support USACE's ongoing national and local implementation of reduction strategies across the Civil Works program.
- Provide methods and technology to support decisions for greenhouse gas emission reductions based on multi-criteria decision analysis.
- Develop and test innovative greenhouse gas emissions reduction strategies to meet proposed targets.
- Evaluate carbon sequestration potential of USACE projects and systems and potential for use of renewable and sustainable energy sources.
- Provide training and capacity building across USACE offices and Civil Works missions with regard to the Corps emerging adaptation and mitigation guidance and approaches for sustainable water resources.

ACCOMPLISHMENTS IN PRIOR YEARS: N/A

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Inland Waterway Navigation Charts

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$4,000,000
Appropriation for FY 2010	$3,611,000
Budget for FY 2011	$3,800,000
Increase in FY 2011 from FY 2010	$ 289,000

AUTHORIZATION: PL 85-480, approved 2 July 1958, authorizes the Commander, US Army Corps of Engineers (Corps) to publish information pamphlets, maps, brochures, and other material on river and harbor, flood control, and other civil works activities, including related public park and recreation facilities that may be of value to the general public.

JUSTIFICATION: This effort provides Corps' Electronic Navigational Chart (ENC) data for all inland waterways and other federal navigation channels maintained by the Corps to be used by commercial Electronic Chart Systems (ECS), which, when combined with the existing Differential Global Positioning System (DGPS), will improve the safety and efficiency of marine navigation in both inland and coastal waterways of the United States. On inland waterways, the Corps will collect more accurate survey and mapping data than is currently on its paper charts, and produce Inland Electronic Navigation Charts (IENCs) in accordance with navigation users and ECS vendors. When combined in the commercial ECS, the technology will greatly improve the safety and efficiency of navigation. This will allow safe navigation through bridge openings during fog and other bad weather conditions as well as during heavy traffic situations, and provide an accurate display for other systems such as radar and Automatic Identification Systems. The Corps will use the S-57 international data format, the electronic data transfer standard prepared by the International Hydrographic Organization committee. The S-57 format is consistent with electronic chart products produced by the National Oceanic and Atmospheric Administration (NOAA), and the chart products produced by the two agencies will be coordinated for compatibility in adjoining areas. The Corps will also coordinate with the U.S. Coast Guard for aids to navigation information and collaboration on rules for chart carriage by waterway users. In coastal and Great Lakes areas, the Corps will produce standardized channel condition chart products that will provide consistent and reliable information to NOAA for chart updates, in accordance with Water Resources Development Act of 2000, Section 558. Similar channel chart products will be provided to navigation users, and these coastal and Great Lakes channel condition chart products will also follow the S-57 format. Such ENC development and publication activities are in accordance with National Transportation Safety Board recommendations to the Corps, and subsequent commitments made by the Chief of Engineers.

PROPOSED ACTIVITIES FOR FY 2011: Update features for the Mississippi, Ohio, Allegheny, Arkansas, Atchafalaya, Cumberland, Green, Illinois, Kanawha, Tennessee, Monongahela, Kanawha, Green, Tenn-Tom, Black Warrior-Tombigbee, Missouri, Ouachita, Alabama, and Kaskaskia Rivers – 7,200 miles; complete conversion of charts to international IENC standard. Continue cooperative charting program with U.S. Power Squadron; completion of channel framework and channel condition reports procedure for NOAA charts, investigate addition of new features and technology.

ACCOMPLISHMENTS THROUGH FY 2010: Continued development and conversion to international IENC standard of chart coverage for the following rivers: Missouri – 147 miles; Ouachita – 351 miles; Tennessee tributaries – 112 miles; Alabama – 304 miles; Kaskaskia – 36 miles. Completed development for lower Missouri River – 500 miles, Tennessee River – 650 miles; updated features for the Mississippi, Ohio, Allegheny, Monongahela, Arkansas, Black Warrior-Tombigbee, Cumberland, Tennessee, Tenn-Tom, Illinois, Kanawha Rivers – 5,700 miles. Completed channel framework of coastal and Great Lakes areas; established standard for paper charts; continued data reporting and compilation process with U.S. Power Squadron, showcased chart development and production at several national and international meetings.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Inspection of Completed Federal Flood Control Projects (ICW)

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2008-2013) Program Cost	$ 10,000,000
Appropriation for FY 2010	$ 1,692,000
Budget for FY 2011	$ 1,780,000
Increase of FY 2011 over FY 2010	$88,000

AUTHORIZATION: Section 221 of the Flood Control Act of 1970, as amended (84 Stat. 1831, 42 U.S.C. l962d-5b), requires that a written agreement be executed between the Secretary of the Army and the non-Federal sponsor to identify the "items of local cooperation" for US Army Corps of Engineers (USACE) projects, including operation and maintenance of the project. It also authorizes USACE to "undertake performance of those items of cooperation necessary to the functioning of the project for its purposes if USACE has first notified the non-Federal interest of its failure to perform the terms of its agreement and has given such interest a reasonable time after such notification to so perform." To determine whether the non-Federal sponsor is performing as it has agreed, USACE undertakes inspections of completed projects.

JUSTIFICATION: The USACE civil works program has approximately 11,750 miles of levees and floodwall systems and 383 reservoirs. These systems are part of many highly populated communities across the nation. Upon completion most of the infrastructure built under this program is transferred to the sponsoring cities, towns, and special use districts that own and operate the projects. All of them require continued maintenance after construction in order to ensure the project will function as intended.

Since reservoirs are typically inspected under each individual state's dam safety program, the priority of the ICW program in recent years has been levees because of public safety aspects. In 2006, the U.S. Army Corps of Engineers (USACE) created its Levee Safety Program with the mission to assess the integrity and viability of levees and recommend courses of action to make sure that levee systems do not present unacceptable risks to the public, property and environment. The Inspection of Completed Works Program is now guided by the Levee Safety Program. With this in mind, the basic objectives of the USACE Levee Safety Program are (1) to develop balanced and informed assessments of this nation's levees; (2) to evaluate, prioritize and justify levee safety decisions, and (3) to make recommendations to improve public safety associated with levee systems. One of the main activities includes inspections of federally authorized projects operated and maintained by a non-Federal sponsor. The purpose of the inspections is to determine if the levee system will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities include updating information in the National Levee Database; screening levees to being to rank them in order of risk; conducting pre-storm inspections of federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with USACE policy and guidance for such proposals i.e. Section 208/408 proposals; and updating project operation and maintenance manuals.

Coordination between USACE and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying USACE requirements, the improved inspection results will be made available on the National Levee Database and will be of great value to local, State, and other Federal agencies tasked with the development and implementation of state and local Levee Safety Programs.

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PROPOSED ACTIVITIES FOR FY 2011: Activities will include continued implementation of improved, standardized national inspection criteria and standards for inspections (routine and periodic) of completed levee systems to insure uniform, consistent evaluation and assessment of operations and maintenance activities performed by local project sponsors. Continue the update and publication of the Levee Owner's Manual and inspection checklist, including modification to the automated Levee Inspection System. Review of vegetation variances. FY11 will require $ 1,780,000 to continue implementation of these inspection program improvements.

ACCOMPLISHMENTS IN PRIOR YEARS: Implementation of improved, standardized national inspection criteria and standards for inspection ratings of both federal and non-federal flood damage reduction projects have been established to ensure nationally consistent evaluation and assessment of operations and maintenance activities performed by local project sponsors. Development of a more robust technical inspection process and risk assessment methodology will provide improved assessment of levee performance, deficiencies and improvements necessary to insure that levee systems will perform as intended. Completed detailed technical assessment of over 31 miles of federal projects (119) with I-wall construction to ensure I-wall stability and reliability based on lessons learned from the performance of I-wall in New Orleans during Hurricane Katrina. Conducted intensified notification and coordination with project sponsors for all federal projects that have received an unacceptable rating during the last inspection to insure that sponsors address and correct deficiencies. Updated vegetation management standards for levees.

APPROPRIATION TITLE: Operation and Maintenance -- Fiscal Year 2011

Long Term Option Assessment for Low Use Navigation Pilot Project

SUMMARIZED FINANCIAL DATA:

Estimated Pilot Project Cost	$ 5,000,000
Allocation for FY 2010	$ 1,425,000
Budget for FY 2011	$ 1,500,000

AUTHORIZATION: Section 216, River and Harbor Act of 1970, PL 91-611, 84 Stat. 1830.

JUSTIFICATION: Federal channel and harbor projects have been characterized principally as either deep draft or shallow draft, and further characterized as either high-use or low-use based on the level of commercial waterborne traffic carried on the project. Similarly, Federal inland waterways segments have been characterized principally as either high-use or low-use, based on the level of commercial waterborne traffic on each segment. While channel and harbor projects with shallower depths and inland waterways segments with lower levels of commercial traffic tend to have lower levels of economic activity, this way of characterizing projects is, at best, only a rough indicator of the return to the Nation from the investments required to operate and maintain the projects or segments. For example, a navigation project with lower commercial use may not require as much funding to operate and maintain and, therefore, may provide a significant net economic return.

Navigation projects with lower commercial use may contribute to the Nation in other important ways, such as by supporting commercial fishing, subsistence, or public transportation. In some cases they can provide a vital economic engine to local economies, especially in less populated areas, or serve as a harbor of refuge. As of yet, there is no objective means of determining how best to weigh such needs against those of the facilities that support higher levels of commercial traffic.

This Low Use Navigation Pilot Project would encourage alternate non-traditional ways to fund maintenance of low-use harbors and waterways. The Pilot Project would focus on the Atlantic Coast and Chesapeake Bay for much of the North Atlantic and South Atlantic Divisions. It will identify the universe of Federal harbors and inland waterways segments that support lower levels of commercial use and their respective non-Federal sponsors. The project will also formulate a range of possible long-term options for the funding and management of such facilities, evaluate the pros and cons of these options, and examine their applicability to the various types of low-use navigation facilities.

PROPOSED ACTIVITY FOR FY 2011:

Verify the universe of Federal channel and harbor projects and inland waterway segments with relatively low levels of commercial traffic and their respective non-Federal sponsors. Encourage non-federal sponsors to organize themselves regionally to efficiently perform periodic maintenance dredging as needed to support regional navigation requirements and development plans.

Encourage and advise local sponsors and users on organizing themselves for mutual benefit by working through existing public entities or creating new ones.

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Provide information on potential efficiencies and benefits, and offer case studies on how some regional interests have organized themselves to recover costs from direct beneficiaries.

Through the Corps Regulatory Program, create streamlining regional general permits that would strive to eliminate the need for an individual local sponsor to apply for an individual permit for each dredging cycle.

Determine appropriate level of Federal participation in performing environmental work necessary to support permits for maintenance dredging within the boundaries of the existing Federal project, and environmental analyses necessary to allow placement of dredged material at existing placement sites, and work with consortia of sponsors to develop long-term non-federal dredged material management plans where no existing sites are available.

Address significant environmental concerns, such as threatened and endangered species, more effectively by considering maintenance dredging impacts on a cumulative basis through the regional general permit process.

Work in partnership with non-federal sponsors to explore alternatives to organize into effective watershed-based partnerships to carry out maintenance dredging and recover costs from direct beneficiaries.

Create partnerships as needed to provide for maintenance of projects within the watershed and to address regional development opportunities.

Create long-term plans for the scheduling of regional project maintenance and for placement of dredged material.

Prepare a report documenting findings.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Monitoring Completed Navigation Projects (MCNP)

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2011-2015) Program Cost	$10,000,000
Appropriation for FY 2010	$ 1,711,000
Budget for FY 2011	$ 1,800,000
Change in FY 2011 over FY 2010	$ 89,000

AUTHORIZATION: Authorization for the Corps of Engineers Engineer Research and Development Center (ERDC) to conduct R&D is codified in 10 U.S.C. 2358 ("The Secretary of Defense or the Secretary of a military department may engage in basic research, applied research, advanced research, and development projects that are necessary to the responsibilities of such Secretary's department in the filed of research and development.")

JUSTIFICATION: These monitoring efforts, governed by **Engineer Regulation 1110-2-8151,** are essential for providing data for efficient and effective management of critically important Federal shallow- and deep-draft navigation projects for both national economic and military sealift security reasons. The Corps operates and maintains more than 800 navigation projects encompassing more than 25,000 miles of waterways. The Corps requires a national program to identify the best navigation project practices, and to use them to improve all other navigation projects' performance. Optimizing Civil Works project's performance requires that they be monitored upon completion, evaluated against preconstruction and present needs, and lessons learned translated into proactive management guidance for Corps Districts. Information gained from the MCNP program, including changes in sediment transport, water levels, currents, waves, flushing, river flows, structure deterioration, and other coastal and river hydraulic phenomena with associated environmental impacts, will be used to verify design expectations, determine benefits, and identify operational and maintenance efficiencies. Information collected will significantly improve projects' performance, and optimize opportunities for environmental enhancement. Information of a national basis documents successful designs, disseminates lessons learned on projects with problems, and provides upgraded field guidance for solutions that will reduce life-cycle costs on a national scale.

Both shallow- and deep-draft navigation projects located in ports, harbors, rivers, reservoirs, lakes, estuaries, and in the coastal zone are included in this program. Projects that provide maximum cost savings are identified, and those that best address high-priority life-cycle O&M project cost savings are selected for monitoring and evaluation. Monitoring plans are developed jointly by Corps districts and the Engineer Research and Development Center.

Coordination between the Corps and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying Corps' requirements, the data are made available through publications and electronic technology transfer, and will be of great value to local, State, and other Federal agencies with navigation management policies. Results are communicated immediately to other member agencies of the Marine Transportation System (MTS).

PROPOSED ACTIVITIES FOR FY 2011: All monitored projects were nominated by Corps Division and District offices for inclusion in this MCNP program.

- **Great Lakes Armor Stone Deterioration Study at Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI:** Will conduct three rounds of field monitoring of deterioration of scaled-size test Index Stones at each of the three field sites. Will continue analyzing and processing field data from the three sites. Will conduct tests of laboratory-scale stones for abrasion, freeze-thaw, and wet-dry. Will begin correlation of laboratory test data with empirical field data. Will continue refinement of numerical models for armor stone design based on lab and field results. A Degradation Model and a Heterogeneity Model will be developed. Innovative technology will be developed for seismic and magnetic resonance imaging, and for field transportable sensors.

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- **Periodic Inspections:** Will continue revising the Enterprise Coastal Inventory Database for Periodic Inspection structures to incorporate Facilities and Equipment Maintenance (FEM) number, reaches, cross section data, section composition, condition data, wave and water level data, and performance data. Will coordinate with Coastal Navigation Data Bank development to incorporate LiDAR and as-built GIS information from each Periodic Inspection structure, and compare data to previous photogrammetry surveys. Initial focus will be on Honolulu District and Great Lakes structures.

- **Montgomery Point Lock and Dam, AR:** This study is exceedingly important because similar unique flap gate designs are under consideration for Upper Mississippi and Ohio River lock modifications. Will acquire continuous measurements of forces on flap gate hinges. Will analyze leakage data around and between the flap gates, and continue analyzing total load data on flap gates. Will analyze vessel tracking video and ADCP velocity data for hazardous current conditions. Will analyze sediment deposition patterns upstream of dam, and scour hole development downstream of lock.

- **Galveston Ship Channel, TX:** Historical data will be analyzed for priority shipping channels to ascertain national extent of increased shoaling after deepening and widening of the channels. Velocity meters will be deployed at Galveston Ship Channel and flow velocities determined. Dredging records will be correlated with increased channel dimensions and flow velocities to optimize infilling rates with increased channel size. Adjacent beach profiles will be monitored to ascertain quantity of beach material moving into entrance channel, and quantity bypassed, after channel lengthening. Feasibility of creating beneficial use area with increased dredging quantity will be evaluated.

- **Marmet Locks and Dam, WV:** Will continue to acquire and analyze through-the-sill intake and discharge flows to determine potential for drawing a tow towards upper miter gate while filling and emptying. Will continue to monitor radial transitions in the culvert tunnels to ascertain concrete erosion rates under high current velocities. Forces on, and vibrations of, unique Stoney Gate valves will continue to be monitored under various intake and discharge flow rates to evaluate suitability for installation at other locks on the Upper Mississippi and Ohio Rivers. Impact data from barge tows on new upper guide wall design will be analyzed to determine durability and sustainability due to repeated impact loads on the wall.

- **Project to be selected will be initiated:**

ACCOMPLISHMENTS IN FY 2010: In FY 2010, 4 Technical Reports (TR) were published and disseminated to Corps Field Operating Activities, containing improved, updated, and enhanced design guidance.

- **Kaumalapau Harbor, HI:** Here, the largest CORE-LOC armor units ever used by the Corps (35 ton) were used to rehabilitate the breakwater. Published comprehensive final Technical Report including new findings related to CORE-LOC settlement, armor movement, breakage during settlement, and strength of units. These findings are the basis for improved design guidance for new, and rehabilitation of damaged, structures using 1-layer CORE-LOC concrete armor units, providing valuable information for design and installation at other high wave energy locations. Study completed.

- **J. T. Meyers Locks and Dam, KY:** Published final Technical Report regarding innovative repair techniques to lock wall concrete and armor systems that provide minimal disruption to navigation operations. Many lock chambers on the Ohio River and Upper Mississippi River are susceptive to similar deterioration. High strength concrete and anchor-embedded steel plates provided a permanent fix. The repair techniques successfully demonstrated and documented at J. T. Myers Locks and Dams will provide valuable design guidance for rehabilitation of existing navigation lock walls. Study completed.

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- **John Day Lock and Dam, OR:** Published final Technical Report that includes recommendations for flood bay releases and power plant discharges under various river stages to minimize hazardous navigation currents. Such knowledge is applicable to other similar lock and dams on the Lower Columbia River and Lower Snake River. Study completed.

- **Great Lakes Armor Stone Deterioration Study at Burns Harbor, IN; Cleveland Harbor, OH; and Keweenaw Waterway, MI:** Conducted three rounds of field monitoring of deterioration of scaled-size test Index Stones at each of the three field sites. Completed laboratory testing of Burns Harbor Index Stone samples. Continued analyzing and processing field data from the three sites. Continued development and refinements of numerical model of stone degradation based on laboratory and field results.

- **Periodic Inspections:** Continued as a significant partner in the National Coastal Mapping Program by collecting coastal structure topographic LiDAR data and incorporating into the National Coastal Structure Database. Completed analysis of the West Coast structure data. Incorporated West Coast data into Enterprise Coastal Inventory Database (ECID). Surveyed Alaska coastal structure. Published West Coast Periodic Inspections final Technical Report. Publish peer-reviewed journal paper on Periodic Inspections.

- **Montgomery Point Lock and Dam, AR:** This study is exceedingly important because similar flap gate designs are under consideration for Upper Mississippi and Ohio River lock modifications. Procured and installed monitoring equipment for continuous measurement of forces on flap gate hinges. Obtained leakage data around and between the flap gates. Analyzed total load data on flap gates, and leakage data around the flap gates. Correlated river stages with sedimentation and bathymetry changes in vicinity of lock and around flap gates.

- **Galveston Ship Channel, TX:** Contributions to channel shoaling are being evaluated within a framework of field data collection. Past and present conditions are being evaluated within the context of historical channel dimensions, dredging, and placement data; present-day measurements of channel cross-sections before and after dredging; and numerical modeling of future shoaling and structure efficiency with forecasted increase in relative sea level. Study is investigating whether jetties should be sand-tightened. The Beneficial Use Berm is being evaluated to determine if sand placed in the Berm nourishes the adjacent beaches or contributes to channel shoaling. Vessel wake and turbulence are being incorporated into the analyses.

- **Marmet Locks and Dam, WV:** Intake and discharge through upper and lower miter gates is being evaluated with respect to potential to draw a tow towards the upper miter gate while filling, and turbulence created in lower approach while waiting to lock up-bound. Through-the-sill intake may be prone to drift and require periodic cleaning, and will be monitored. Erosion at the radial transitions of the culvert tunnel is being evaluated. Unique Stoney gate valves are being monitored for forces and vibrations for application consideration at other locks. New upper guide wall provides an impact surface for barge tows, allowing them to align with the new lock. Guide wall are being evaluated for durability and sustainability due to repeated impact forces on the wall.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National (Levee) Flood Inventory

SUMMARIZED FINANCIAL DATA:

Estimated Five-Year (FY2008-2013) Program Cost	$ 120,000,000
Appropriation for FY 2010	$ 10,000,000
Budget for FY 2011	$ 15,000,000
Increase of FY 2011 over FY 2010	$ 5,000,000

AUTHORIZATION: Title IX of the Water Resources Development Act (WRDA) of 2007 cited as the National Levee Safety Act of 2007 (the Act).

JUSTIFICATION: It is realized that levees are abundant and integral to economic development in many communities, including many highly urbanized areas, in the United States. Yet, the total number and location and condition of all the levees in the US are currently unknown and the public often have only a limited understanding of levees and the risks associated with them. USACE has specific authorities to inspect and assess only Federal levees which total about 14,000 miles nationwide. However, including non-Federal levees, there have been estimates that there could actually be up to a total of 100,000 miles of levees nationwide. In 2005, levee failures caused the loss of 1,800 lives and economic damages that are estimated to be over $200 billion dollars.

PROPOSED ACTIVITIES FOR FY 2011: USACE will continue to expand the National Levee Database (NLD) to other federal agencies and all the states. In accordance with Title IX, USACE will implement a process to collect available levee information from states and communities for inclusion in the NLD. Additionally, USACE will work with stakeholders to facilitate their use of the NLD for local levee safety programs. USACE is currently developing a levee screening and classification process to rank and prioritize levees on a risk basis. It is anticipated screening activities will continue through FY2011. As provided in reference WRDA authority the National Committee on Levee Safety (NCLS) will work to further develop the governance structure of the Commission, a stakeholder involvement plan, and a strategic implementation plan of the recommendations in the Report. It is anticipated that these activities will be continued within the first quarter of FY2011. USACE will also continue to work with federal partners to better align existing federal programs that impact or are related to levees.

ACCOMPLISHMENTS IN PRIOR YEARS: In May 2006, USACE began the process of building a living, dynamic database, called the National Levee Database (NLD), to house information relative to the status and safety of the nation's levee systems. The NLD will serve as a national source of information to facilitate and link activities which include flood risk communication, levee evaluation, levee inspection, flood plain management, and risk assessments. The database includes all necessary attributes of levees/floodwalls relevant to design, construction, operations, maintenance, repair and inspections. The NLD also includes information from FEMA on levees within the National Flood Insurance Program and flood risk information from the FEMA HAZUS database. To date, 14,000 miles of levees within the USACE Levee Safety Program have been identified. The overall intent is to continually update the NLD with new information across all aspects of levee safety as this information is gathered and developed. In addition to the database, USACE has developed an automated Levee Inspection System tool as part of the NLD. It is a Geographic Information Systems (GIS) / Global Positioning System (GPS) based inspection tool that incorporates the levee inspection checklist and links directly with the NLD. The National Committee on Levee Safety (NCLS) prepared a report for Congress with recommendations on a National Levee Safety Program entitled "A Report to Congress from the National Committee on Levee Safety – January 15, 2009". Later in

2009, the NCLS worked to develop additional input to inform and refine the recommendations and began development of a strategic implementation plan.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National (Multiple Project) Natural Resources Management Activities

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$4,230,000
Appropriation for FY 2010	4,020,000
Budget for FY 2011	4,230,000
Increase in FY 2011 from FY 2010	210,000

AUTHORIZATION: This program is conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: On December 10, 1996, House and Senate appropriations subcommittee staff determined it was appropriate to allocate a portion of Civil Works projects appropriated funds to conduct certain, specified operations and maintenance activities that benefit all or a majority of operating Civil Works projects. This determination was formalized in appropriations language in FY 2002. Funding these multiple project activities as single entities, rather than on a project-by-project basis, is efficient and cost effective, reducing administration costs and providing for efficient management and oversight. An example of such an activity is the procurement of park ranger uniforms through a contract administered by the National Park Service. Providing a nationwide funding source for centralized procurement of these items used by all operating projects having a natural resources management program precludes the need for funds to be transferred by each project or district to a single procurement agent, a savings of from 60 to 300 transactions a year.

PROPOSED ACTIVITIES FOR FY 2011:

Nationwide (multiple-project) activities that will be accomplished in FY 2011 with these funds include the following activities:

1. Environmental Management System (EMS) Implementation. The EMS has been implemented at 42 designated projects. Funding this as a nationwide activity will allow USACE auditors to review and validate EMS implementation completion at required facilities without transferring funds from each project to a central source. The development of case studies and outreach materials for lessons learned provide initiative and support for other facilities/projects wishing to implement EMS in FY10 and future years.

2. Natural Resources Management Career Development/Training Support and Material Development. Funds are used to address training and career development issues for the Natural Resources Management Community. The needs of all 2,000 NRM field staff in the Corps are served through the development of numerous products, including a number of exportable training courses to meet established training requirements. Funding this as a nationwide activity is appropriate because all NRM field staff benefit equally from the work accomplished.

3. Park Ranger/Manager Uniforms. The Corps purchases uniforms for field personnel through an inter-agency contract administered by the National Park Service. Funding this as an inter-agency effort and as a nationwide activity reduces the administrative costs by eliminating the requirement to transfer funds from each individual project to the NPS. Significant economies of scale have been achieved through this arrangement since 1984. Costs include the authorized employee allowance funds (including an HQ-approved increase in replacement allowance), NPS contract administration costs, buy out of discontinued items, program management/committee support, and the purchase of required emblems.

National (Multiple Project) Natural Resources Management Activities

4. Printing and Publishing - Printing of forms, brochures, and similar materials used by all Corps projects achieves economies of scale and reductions in total administrative and procurement costs. Materials include Annual Day Use Passes and Brochures. Printed materials are stored at the Corps Publications Depot for distribution to all projects upon request.

5. Sign Standards Manual and Software Update and MCX Operation. A Mandatory Center of Expertise provides technical support and assistance to all projects in the operation of the Corps Sign Standards Program, through the maintenance of the Sign Standards Program Manual and software and providing technical assistance to field users. These efforts allow the Corps to maintain a consistent image that we present to the visiting public. Funding this as a nationwide activity assures competent and timely assistance to users, which increases the consistency, effectiveness and efficiency of the sign program.

6. Volunteer Clearinghouse Operation. The Volunteer Clearinghouse is operated under contract with Goodwill Industries to support volunteer efforts at all Corps projects. Funding this as a nationwide activity achieves economies of scale through the use of a single contract and reduces administrative costs by eliminating the need to transfer funds from all projects to the single contracting element.

7. Water Safety Products. The Corps Water Safety National Operating Center produces and distributes water safety products and programs to all Corps projects. Products educate and inform visitors of the dangers associated with water-oriented recreation. Significant economies of scale have been realized through the centralized administration of this program that assures current and critical topics are covered, using effective media targeted to high-risk groups. Drownings and associated lawsuits have been reduced significantly since the implementation of this program in the mid 1980's. Current command emphasis is requiring an even further reduction of fatalities during the next two years.

8. Other Nationwide NRM Activities. The following additional NRM Activities are recommended for funding to achieve cost efficiencies at the national level. Challenge Partnership Seed Funds; Critical Incident Stress Management (CISM) Program; Natural Resources Management Awards; Operations CoP Gateway; Partnership Advisory Committee; Property Protection Program; RecBEST Coach, Assist and Train Team; Career Assignment Program for Operations Project Managers; Visitor Center Initiative/Corps Story; and Bilingual Support Team.

ACCOMPLISHMENTS IN PRIOR YEARS: The allocation of project operations and maintenance funds to conduct specified nationwide (multiple-project) activities to improve the efficiency and cost effectiveness of the Corps NRM program has been employed, with subcommittee staff knowledge and concurrence, since the early 1990s for activities similar to those identified for FY 2011.

APPROPRIATION TITLE: Operation and Maintenance -- Fiscal Year 2011

National Coastal Mapping Program

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$7,000,000
Allocation for FY 2010	$10,000,000
Budget for FY 2011	$7,000,000
Increase of FY 2011 over FY 2010	$ 0

AUTHORIZATION: These efforts are essential to providing data for efficient and effective management of critically important National water resources. Regional Sediment Management (RSM) activities are authorized by Section 516 of WRDA 96.

JUSTIFICATION: The National Coastal Mapping Program is the only Federal coastal mapping program that produces regional, operational data along the coast on a recurring basis. Regional Sediment Management requires regional measuring and monitoring to provide engineering, environmental, and economic data and information for decision makers and managers. There are approximately 7,500 miles of sandy coastline in the continental US and no other program in the Corps (or other Federal agencies) provides consistent, recurring, regional data to measure and monitor physical, environmental, and economic conditions, and their changes over time. It is the quantification of regional conditions and changes that will lead to improved management practices of entire regions and projects within those regions. Without these data, the Corps cannot fulfill its goal of a systems approach to coastal management, including navigation and coastal flood damage reduction projects.

The National Coastal Mapping Program continues development of next-generation technology to measure and monitor coastal zone engineering, environmental, and economic conditions on a regional scale. Certain aspects of existing sensor design and operational methodology have been found to impose fundamental limitations on the production of high resolution information and arise from the basic issue that existing lidar sensors are designed to excel in the measurement of a single variable, depth, in the deepest possible water. CZMIL is an effort to advance the state-of-the-art in the three major areas of algorithms, software, and hardware. The CZMIL project is intended to provide a sustained focus and collaboration among academia, industry, and federal government to review and refine existing capabilities for the measurement of additional regional coastal information, and to design and build a new generation of hardware and software wherein known limitations are addressed, and a wider range of engineering, environmental, and economic information is produced over a broader range of operating environments. While the measurement of depth under operational conditions is still of primary importance, improvements in data quality, target resolution, bottom classification, sediment transport detection, coastal change detection, and land use are desired and will be addressed.

PROPOSED ACTIVITIES FOR FY 2011: The program will return to the Great Lakes to collect a second set of elevation and imagery data for the lakeshores. The second survey will begin to provide information and knowledge on change and rates of change, sediment transport and erosion of sandy coasts, changes on and around navigation structures, change in wetlands or sea grass, and change in land use and coastal development and resiliency. Quantification of change is the information needed most for management of navigation projects and can only be determined from repetitive mapping. The CZMIL effort under the National Coastal Mapping Program will begin a year-long sensor characterization in which the capabilities of the new sensor are enumerated in a variety of environmental conditions: varying water types, seafloor types, and water surface conditions. The University of Southern Mississippi will characterize its performance and the quality of resulting data products. This information will speed acceptance of the technology by the surveying and mapping community, and inform the design of robust standard operating procedures for future CZMIL field deployments. Work will continue on algorithms to extract information salient to the navigation community from the collected datasets, to infer depth information in turbid waters, and on tools for the exploitation of data produced by the program.

APPROPRIATION TITLE: Operation and Maintenance -- Fiscal Year 2011

ACCOMPLISHMENTS IN PRIOR YEARS:

In FY2009 and FY2010, a combination of program funds, hurricane supplemental funds, and ARRA funds will enable National Coastal Mapping operations on the West Coast, Gulf Coast, and East Coast using all three commercially available airborne lidar bathymetric sensors. The bathymetric lidar, topographic lidar, RGB imagery and hyperspectral imagery produced by these sensors will be used to produce digital elevation models of the coastal zone, orthometric imagery, bare earth DEM's, shoreline position, seafloor reflectance, and land cover classifications. Beginning in Texas, upon reaching Mississippi we will have succeeded in the first complete survey of the US coast and will begin mapping the coast for the second time. The first coverage provides the first-ever inventory of Federal Navigation projects and coastal shore protection projects. The second survey will begin to provide information and knowledge on change and rates of change, sediment transport and erosion of sandy coasts, change in wetlands or sea grass, and change in land use and coastal development and resiliency. Quantification of change can only be determined from repetitive mapping, which is the information needed most for management of navigation projects. In addition to the standard products, new products aimed at quantifying change since the first survey of the program, like elevation difference surfaces, will be provided to the districts. The one-year survey effort afforded by the combination of funds will also provide a unique synoptic view of the nation's coasts and coastal infrastructure against which to measure the impacts of expected changes in sea-level in the coming years.

The CZMIL Detailed Hardware Design and integrated survey system will be delivered during this time period. Version 1 software for survey planning and management, real-time data collection, and software for post-processing to standard data products will also be delivered. The CZMIL project will realize a new, integrated sensor and software suite for improved coastal mapping and imaging and automated data processing and product generation. New algorithm development will begin focusing on evaluating condition of coastal infrastructure and discriminating critical habitat from the collected datasets, development and application of regional sediment budgets for enhanced navigation project management, and 3D visualization and analysis of high-density, highly-dimensional datasets.

APPROPRIATION TITLE: Operations and Maintenance – Fiscal Year 2011

National Dam Safety Program – Portfolio Risk Assessment

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$18,000,000
Appropriation for FY 2010	$17,106,000
Budget for FY 2011	$17,450,000
Increase of FY 2011 over FY 2010	$ 344,000

AUTHORIZATION: Dam safety legislation PL 92-367 and PL 99-662, and the National Dam Safety Program Act (Section 215 of PL 104-303), the Dam Safety and Security Act of 2002 (Public Law 107 - 310) and the Dam Safety Act of 2006 (Public Law 109-460).

JUSTIFICATION: The Federal Guidelines for Dam Safety provides a framework for safe construction, operation, and maintenance of Corps dams. Dams in the United States must be constructed, operated, and maintained in accordance with sound engineering practices to prevent failure and avoid potential loss of life and destruction of property. This National Dam Safety Program (NDSP) account consists of two parts: (1) the operation of the NDSP including participation with other agencies; and (2) implementation of a risk analysis program for all 650 of the Corps dams, including recurring mapping and interim risk reduction work.

(1) The NDSP was established to enhance national dam safety. These funds support the activities under the NDSP, in the interests of the Corps and the citizens of the Nation. The National Dam Safety Program Act strengthens the NDSP, whose purpose is to reduce risks to life and property from dam failure in the United States. The Act also codified the Interagency Committee of Dam Safety (ICODS) to coordinate the Federal actions under the NDSP. The Chief, Engineering and Construction, Directorate of Civil Works (USACE, Dam Safety Officer), or his representative, represents the Department of Defense as a member of ICODS. The Corps also provides a representative to the National Dam Safety Review Board for the Secretary of Defense. The National Dam Safety Program Act expanded the scope of previous dam safety legislation and the requirements for ICODS participation with various states to improve dam safety in the United States. Through ICODS, the NDSP provides support in development of federal guidelines for dam safety, promotion of public awareness programs, publications, training materials, and workshops. The Act also provides for archival research that is supported by Federal dam owning agencies through ICODS and the National Performance of Dams Program. The Dam Safety Act of 2006 extended the National Dam Safety Program Act appropriation authorization for five years.

(2) While no Corps dams are in imminent danger of failure, many of them have a high dam-safety risk due to the likelihood of extremely large floods, seismic events, seepage and piping problems, and other damages and/or deterioration problems. The need to prioritize budget activities requires that the Corps uses risk assessment as a central part of the decision-making process to direct funding to those dam safety issues presenting the greatest risk and to those rehabilitation actions that result in the greatest risk reduction for their cost. For each dam in the portfolio, the risk assessment provides estimates of the probability of failure and consequences by each initiating event. In addition, risk reduction measures are formulated and their cost and effectiveness estimated. The results arrayed by risk level and risk reduction cost effectiveness provide a risk ranking for the portfolio of dams. The portfolio risk assessment (PRA) process has demonstrated its value starting in Fiscal Year 2005 by identifying a number of dams with high risks. The initial screening of all Corps projects was completed in Fiscal Year

National Dam Safety Program – Portfolio Risk Assessment (Continued)

2010. Fiscal Year 2011 funding will be used to perform detailed risk analysis on the highest risk dams in the portfolio and identify appropriate studies and corrective actions necessary to meet the Corps dam safety responsibilities.

PROPOSED ACTIVITIES FOR FY 2011:

(1) The NDSP account provides effective coordination of dam safety activities across the various regions of the Corps and provides for Corps participation at national dam safety events. The account also provides for District participation on the National Dam Safety Management Team, which advises the Corps Dam Safety Officer on safety of dams policy. The NDSP supports Corps membership and participation in various national and international dams organizations including the Association of State Dam Safety Officials (ASDSO), the US Society on Dams (USSD) and the Dam Safety Interest Group (DSIG). The USSD along with its international counterpart, the International Committee on Large Dams (ICOLD) supports technical knowledge concerning the benefits, engineering, design, and construction of dams. The DSIG is an international group of dam owners involved in research and development of dam engineering. Participation with the DSIG allows the Corps to leverage Civil Works research and development funds.

(2) During Fiscal Year 2011, the Risk Management Center will direct and manage the Corps-wide PRA efforts. The policies and methods for conducting higher level risk analysis are now in place, and more detailed analysis will be completed on the highest risk dams in the portfolio as previously identified by the screening level PRA's. The districts are responsible for collecting appropriate project data, assisting in the analysis of data gaps, using expert judgment to estimate for missing parameters, coordinating meetings, correspondence, and site visits, if required, updating essential plan, studies, or reports, and participating in training on risk analysis and probability methods. The national cadres, under the direction of the Risk Management Center, will conduct risk analysis on the highest priority projects, evaluate, confirm, or update interim risk reduction measures, and identify project specific follow-on actions. The results of the detailed PRA's will be used at the national level to formulate study plans for inclusion in the regular budget cycles, identify appropriate corrective actions, and determine the urgency of such actions. A Dam Safety Investment Plan (DSIP) is currently under development, with the ultimate goal of determining short and long term construction strategies for modification and repair of all high risk dams in the portfolio. This investment plan will be used to demonstrate how these strategic investments reduce the overall risk of our national portfolio in the most efficient and cost effective manner. This investment Plan will also provide short and long term budget forecasting requirements for budgeting both WEDGE funds and Construction General (CG) funding as part of the normal budgeting cycle. The database of information from the PRA will be linked to the existing Dam Safety Program Management Tools (DSPMT) and the Operations & Maintenance Budget Information Link (OMBIL) to maximize the use of the information developed. Additional emphasis will be placed on the completion of inundation mapping and interim risk reduction measures at all DSAC I and II dams.

ACCOMPLISHMENTS IN PRIOR YEARS:

(1) The NDSP account provided Corps presentations at the United States Society of Dams (USSD) conference and the Association of State Dam Safety Officials (ASDSO) during FYs 2008 and 2009. This account also supported the Corps response to the 9-11 events in the dam safety area. The NDSP account provided field participation in preparing responses to the recommendations of the Corps Peer Review of the Dam Safety Program. Additional funds provide for continued development of the Dam Safety Program Management Tools (DSPMT) and the

National Dam Safety Program – Portfolio Risk Assessment (Continued)

Dam Safety Program Performance Measures (DSPPM). Both programs are being developed along with the Interagency Committee on Dam Safety (ICODS) to improve both Federal and State safety of dams programs.

(2) Portfolio Risk Assessment portion of this account has provided initial work in the development of overall procedures for the continuing analysis of the portfolio of dams. During FY 2005 through FY 2010, this work included the formulation of risk management policies and guidelines, development of reliable methodologies and calculation tools used for the determination of risk estimates, selection and training of regional PRA cadres and the screening of all the Corps dams in our national portfolio. The results of this work are already being used in prioritizing the remediation of dams.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National Emergency Preparedness Program (NEPP)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$8,000,000
Appropriation for FY 2010	6,652,000
Budget for FY 2011	6,750,000
Change in FY 2010 from FY 2010	98,000

AUTHORIZATION: Executive Orders 10480 and 12656, which cite several acts including The Stafford Act.

JUSTIFICATION: Budgeted funds will enable the Corps to be prepared to accomplish its continuity of operations and continuity of government responsibilities during national/regional crises. This entails support of civil government through coordinated execution of federal agency plans and the planning/conducting of limited exercises to test readiness to provide such support. Executive Orders 10480 and 12656 and the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121 et seq. are the basis of the National Response Framework. The cited executive directives assign significant responsibilities for such preparation (planning, training, research and testing) to the Corps. This includes responsibility for development of comprehensive national level preparedness plans and guidance for response to all regional/national emergencies, whether caused by natural phenomena or acts of man, plans for response(s) to acts of terrorism, and the local preparedness necessary to support Corps continuity of operations. The Corps provides engineering and construction support to state and local governments in response to catastrophic natural/technological disasters. Rapid response to disasters of a regional/national magnitude requires that extensive pre-emergency planning and preparedness activities be conducted to assure the availability of a work force capable of shifting from routine missions to crisis operations and the organizational command and control structure(s) necessary to provide a coordinated and comprehensive response in the critical early stages of a catastrophic disaster.

This program provides the activities necessary to prepare for response to catastrophic natural and technological disasters requiring major Federal support of state and local governments overwhelmed by a disaster event. The preparation requires the development of plans, training of employees, conducting training exercises, including support to FEMA exercises and coordination within DOD and with other Federal agencies and state and local governments. Unlike the Corps Civil Works programs related to individual project planning, development and operations and maintenance, NEPP requires the development of an integrated command planning and response capability. Corps divisions have a key role in the planning, coordination and operational control of multi-district response(s) and the integrated preparedness effort required for accomplishing this response. Preparation also includes the Headquarters sponsored Corps-wide programs necessary to provide the capabilities and operational command and control required by Corps field commands in order to accomplish their NEPP responsibilities, both routinely and in specific emergency response situations. NEPP also provides USACE with the ability to engage and coordinate readiness with other agencies at the National level on programs of Federal primacy or interests.

NEPP is complementary to the Flood Control and Coastal Emergencies (FCCE) appropriation. Although both programs are related to emergency situations, there is a distinct separation of responsibilities. The NEPP provides for the planning, training, and testing activities necessary to develop the capability to meet essential requirements associated with local continuity of operations and response(s) to scenario specific national/regional crises. FCCE, on the other hand, provides preparedness and response related to emergency flood fighting, post-flood repair and restoration of flood and shore protection works damaged or destroyed by floods, hurricanes or wave action and Corps preparedness associated with National Response Plan/Framework mission requirements.

PROPOSED ACTIVITIES FOR FY 2010: The FY 2010 program will provide for continuing the implementation of the National Emergency Preparedness Program. The FY 2010 program will continue the process of catastrophic disaster planning and exercising to enable the Corps to rapidly respond to a broad spectrum of emergencies, with emphasis on natural disaster and terrorists' events that have regional and national implications, such as the Homeland Security Council's National Planning Scenarios. An effort will be made to satisfy increasing demands on the program to support multi-agency (Federal, state, and local government) requests to exercise plans focusing on regional catastrophic natural and man made disasters. Increasingly, Federal, state and local agencies are looking to the Corps in this area. Lessons learned from events such as Senior Leader Seminars, the National Capitol Region workshops, Hurricane Katrina, and the evolving New Madrid earthquake scenario, clearly indicate that the current system does not adequately provide for a response to catastrophic disasters that is timely enough or comprehensive. The Corps has initiated a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. This will result in more detailed planning and should provide for a more comprehensive response to national/regional catastrophic disasters to include terrorist attacks. More extensive coordination with Federal, state and local entities will be incorporated into plan development. In this regard, following FEMA's program focus, USACE will continue to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan, catastrophic hurricane and earthquake responses, and other man-made contingencies with national implications. Completing/Updating plans and regional readiness workshops for the New Madrid Earthquake are critical in FY 2010 as a national level exercise is planned by DHS for FY 2011. Additional efforts will focus on continuing to strengthen COOP readiness and conducting exercises, aligned with the highest national priorities, within the scope of available funding during FY 2010, improved catastrophic disaster response planning and emergency management technical assistance program for technology support, development and transfer of knowledge.

ACCOMPLISHMENTS IN PRIOR YEARS: The Corps continued to emphasize a program that uses the deliberate planning process to develop scenario specific catastrophic disaster plans. Extensive coordination with Federal, state and local entities has been incorporated into plan development. In this regard, following FEMA's program focus, USACE has continued to play a key role in national security planning such as supporting Homeland Security strategic planning efforts, development of the National Capitol Region Response Plan and other plans such as the New Madrid Earthquake, the New Orleans Hurricane, the Los Angeles Earthquake and other contingencies with national implications, such as the fifteen national planning scenarios developed by the Homeland Security Council. Additional efforts focus on continuing to strengthen COOP readiness. Exercises, involving federal, state and local officials, have contributed to a more timely and effective execution of Corps responsibilities during disasters that have national impacts. Urban Search and Rescue (US&R) Training was conducted to recertify cadre members to advanced Structures Specialists, to provide US&R-level weapons of mass destruction training to meet FEMA requirements, to prepare and conduct a new recruit Structures Specialist training course and to purchase associated equipment for the support teams. Seminars, workshops, and exercises, such as mentioned above, have strengthened partnerships and promoted mutual understanding of the roles, responsibilities and interests of USACE, FEMA, other Federal agencies, and State and local governments involved in natural disasters and terrorists' responses. They have provided an excellent opportunity to examine contingency plans, capabilities, and communications at federal, state and local levels. Also, region-specific issues have been identified and addressed at exercises. National level interagency coordination continued through participation in exercises.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

National Portfolio Assessment for Reallocations

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$571,000
Appropriation for FY 2010	543,000
Budget for FY 2011	571,000
Change from FY 2010 to FY 2011	28,000

AUTHORIZATION: Specific project authorizations, Section 216 of the River and Harbor and Flood Control Act of 1970.

JUSTIFICATION: The National Portfolio Assessment for Reallocations was a two year appraisal, initiated in FY 2008, to develop a portfolio of existing Corps of Engineer multipurpose projects to be used as a screening tool to identify the best candidates for opportunities for operational changes and/or reallocation opportunities. During the development of the survey for this assessment, the Corps was considering two other national surveys, one on the water management aspects of Corps reservoir projects and another on sedimentation management concerns. Recognizing that gains could be made from both monetary and district responsive aspects, these three efforts were combined into one. This two year survey and assessment has is now nearing completion on:
(1) The development of a portfolio of Corps projects that identified the best candidates for opportunities for operational changes and/or reallocation opportunities to ensure existing Corps reservoirs contribute to enhance economic and ecosystem values as water demands evolve and a better understanding of global warming issues is gained.,
(2) A paper on alternative funding arrangements for water supply reallocation studies,
(3) A database to examine the status of Corps water management from local, regional, and national perspectives,
(4) An engineering and scientific foundation for a national adaptive management program,
(5) A baseline data set for investigating the evolution of operational water management policies,
(6) An assessment of sediment infilling, its impacts to operating purposes and management practices, and
(7) A database for sediment data collection efforts.

The Corps of Engineers had previously launched a Sustainable Rivers Project in 2002. The purposes of this effort are to assess ecosystem needs downstream of Corps projects and to evaluate water management opportunities for potential operational changes and/or reallocations to enhance ecosystem values while maintaining or improving primary project purposes (e.g. flood risk reduction, water supply, and hydropower). In addition to the development of new modeling tools to support these assessments, this effort resulted in the initiation of pilot projects in eight river basins. These pilot projects seek to define ecological needs, model potential operational changes, and implement and monitor ecological outcomes resulting from the changes to the project's operation. These site-based efforts complement the national portfolio assessment by evaluating water management aspects of reservoir projects and demonstrating an adaptive management approach that can be used to ensure Corps projects maintain their existing purposes while contributing to and/or enhancing economic and ecosystem values as water demands evolve.

A report entitled "A Strategy for Federal Science and Technology to support Availability and Quality in the United States" was published by the Executive Office of the President of the United States in September 2007. This report was a product of the Subcommittee on Water Availability and Quality of the National Science and Technology Council's Committee on Environment and Natural Resources. This committee was charged with: (1) identifying science and technology needs to address the growing issues related to fresh water supplies, (2) developing a coordinated, multi-year plan to improve research to understand the process that control water availability and quality, and (3) enhancing the collection and availability of the data needed to ensure an adequate water supply for the Nation's future. As a result of the information obtained from the completed two year survey and from the initial success of the Sustainable Rivers Project pilot sites, it is clear that it would be desirable to continue the assessment and pilot demonstration efforts to address the national needs as identified in 2007 report from the Executive Office of the President of the United States.

This assessment of data program also is supported by Public Law 111-11, the Omnibus Land Management Act of 2009. Section 9508 of the law is titled, "National Water Availability and Use Assessment Program." While the direct responsibility for this is with the Dept. Of Interior, consultation with the Corps is provided for. The purposes of this section 9508 are to provide a detailed assessment of:

- The current available of water resources in the U.S.
- Significant trends affecting water availability, including each documented or projected impact due to climate change
- The withdrawal and use of surface water and ground water by various sectors
- Significant trends relating to each water use sector including significant changes in water use due to the development of new energy supplies
- Significant water use conflicts or shortages that have occurred or are occurring
- Each factor that has caused or is causing a conflict or shortage

PROPOSED ACTIVITIES FOR FY 2011: INITIAL FUNDING. Funding in the amount of $571,000 will continue the two-increment effort initiated in fiscal year 2010.

1) **Assessment of Data**. Funding in the amount of $286,000 will be used to continue the efforts initiated in fiscal year 2010 by developing in more detail the development of a national program on water management. The projected results of this effort will be to:

- Incorporate information from the Portfolio, Water Management and Sediment surveys
- Incorporate information from drought contingency plans
- Incorporate data from climate change studies
- Develop a project by project projection of water availability and sustainability over the next 10, 20 and 50 year periods
- Roll the developed data up into basin and regional projections
- Develop a program to keep the data current

2) **Sustainable Rivers**. Funding in the amount of $285,000 will be used to provide for an increase in the effort to improve the refining of the practices for evaluating evolving water demands and will be used to continue the efforts initiated in fiscal year 2010 to:

- Support the definition of environmental flow needs
- Model application
- Implementation of operational changes to meet environmental flow needs
- Monitoring and initiation of a process to revise water control plans at selected Sustainable Rivers Project pilot sites.

The experience at existing sites will be used to inform other efforts to modify project operations and refine the practices for evaluating evolving water demands.

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PROPOSED ACTIVITIES FOR FY 2011: RECOMMENDED.
1) **Assessment of Data.** No change from the Initial Funding Level
2) **Sustainable Rivers.** No change from the Initial Funding Level

ACTIVITIES IN FY 2010: The fiscal year 2010 funding of $571,000 was a two-increment effort.
1) **Assessment of Data**. Funding in the amount of $300,000 was used to continue to analyze the data collected in the Portfolio, Water Management and Sediment surveys performed in fiscal years 2008 and 2009 and complete the follow on reports. Efforts were also initiated to: expand the completed web based Water Management survey to collect data on water quality; initiate efforts to investigate climate change implications on Corps projects not in snow areas and; to outline the steps required to develop a National Program on Water Management.
2) **Sustainable Rivers**. Funding in the amount of $271,000 was used to initiate a Sustainable Rivers increment in the National Portfolio study. This funding was used to: support a Definition of Environmental Flow Needs; develop model applications; define needed operational changes; and provide monitoring at selected Sustainable Rives project pilot sties.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Program Development Technical Support

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$300,000
Appropriation for FY 2010	$285,000
Budget for FY 2011	$300,000
Change in FY 2011 from FY 2010	$ 15,000

AUTHORIZATION: The Corps of Engineers has continuously worked to improve on methods for gathering, analyzing and submitting project funding requirements, to respond to all authorized missions within the Operations and Maintenance program. An automated information system, P2, is the approved software system used for the budget development process and has aligned all Civil Works budget requirements within one automated information system.

JUSTIFICATION: P2 provides the program development capability previously provided by the Automated Budget System. The launch of P2 for program development began in FY 2007 and continues in FY 2011. Work under this activity for FY 2011 will ensure that all relevant business processes and rules are incorporated into P2, as well as continuing to refine the data requirements to meet the needs of the budgeting process without creating an undue administrative burden. There will likely be changes needed to adjust P2 to support the O&M program development based on the experiences with the system. This activity will identify needed changes and recommend steps to implement the changes within P2. The technical support for O&M program development will continue to be provided using P2. The deployment of P2 shifted efforts towards development of methods and procedures for setting priorities for all civil works activities and analysis of the entire Civil Works program.

PROPOSED ACTIVITIES FOR FY 2011: Assist O&M program development as supported by P2 for the 2012 and 2013 budget submissions. Identify needed changes and recommend steps to implement changes in P2. Develop program development procedures to support the entire Civil Works program development.

ACCOMPLISHMENTS IN PRIOR YEARS: Maintained and updated the software systems, provided new tools to generate reports, provided training and support to managers. Developed program development tools within P2.

APPROPRIATION TITLE: Operation and Maintenance – Fiscal Year 2011

Protection of Navigation (Four Items)
Protection, Clearing, and Straightening of Channels
Removal of Sunken Vessels
Waterborne Commerce Statistics
Harbor Maintenance Fee Data Collection

SUMMARIZED FINANCIAL DATA:

Estimated Annual cost of Continuing Program	$6,146,000
Appropriation for FY 2010	$5,841,000
Budget for FY 2011	$6,146,000
Change in FY 2011 from FY 2010	$ 305,000

AUTHORIZATION:

Protection, Clearing, and Straightening of Channels - Section 3 of the 1945 River and Harbor Act (as amended by Section 915 (g) of the 1986 Water Resources Development Act) provides continuing authority for limited emergency clearing of navigation channels not specifically authorized by Congress.

Removal of Sunken Vessels - Removal of sunken vessels, or other similar obstructions, is governed by Sections 15, 19, and 20 of the River and Harbor Act of 1899, as amended.

Waterborne Commerce Statistics - The Corps of Engineers (Corps) serves as the Federal Central Collection Agency, and is the sole U.S. Government source for U.S. domestic and foreign (U.S. foreign waterborne commerce statistics mission transferred to the Corps from Census in FY 1999) waterborne commerce and vessel statistics in conformance with the River and Harbor Act of 1922 as amended.

Harbor Maintenance Fee Data Collection - PL 103-182.

JUSTIFICATION: The budget estimate provides for carrying out the following work:

a. Protection, Clearing, and Straightening of Channels - Work is undertaken as emergency measures to clear or remove unreasonable obstructions to navigation in navigable portions of rivers, harbors and other waterways of the U.S., or tributaries thereof, in order to provide existing traffic with immediate and significant benefit. The budgetedamount is an estimate based on historical experience. If actual requirements are more than estimated, funds will be reprogrammed to meet demonstrated needs.

b. Removal of Sunken Vessels - Primary responsibility for removal belongs to the owner, operator, or lessee. If the obstruction is a hazard to navigation and removal is not undertaken promptly and diligently, the Corps may obtain a court judgment requiring removal, or remove the wreck and seek reimbursement for the full cost of removal and disposal. Determinations of hazards to navigation and Federal marking and removal actions are coordinated with the United States Coast Guard in accordance with a memorandum of understanding between the two agencies dated

16 October 1985. Removal procedures are outlined in 33 CFR 245. If removal requirements are more than estimated, funds will be reprogrammed to meet actual needs.

c. Waterborne Commerce Statistics - The data provide essential information for navigation project investment analyses and annual funding prioritization for operation and maintenance of existing projects; as project output information for computation of performance measures; for input into the U.S. National Accounts; and for regulatory, emergency management decisions, and homeland defense. Activities supporting this national statistics mission include: (1) collecting and reporting (includes enforcement role) of water transportation statistical data; (2) automated systems development and operation (transactional systems within Operation and Maintenance corporate information system), processing, compiling, and publishing statistical data and information on waterborne commerce and vessels moving on the internal U.S. waterways, the Great Lakes, and through all U.S. ocean channels and ports; and (3) compiling and publishing the official U.S. documentation of U.S. vessels engaged in commerce, their principal trades and zones of operation.

d. Harbor Maintenance Fee Data Collection - Up to $5 million is authorized to be used annually for the administration of the Harbor Maintenance Trust Fund. Most of these funds are used by U.S. Customs and Border Protection (CBP). The Corps performs analysis of Harbor Maintenance Trust Fund (HMTF) revenues and transfers to validate the adequacy of the HMTF in light of the uncertainty over the legal and international challenges to the Harbor Maintenance Fee (HMF), to document the operation of the trust fund, and to prepare and distribute the *Annual Report to Congress on the Status of the Harbor Maintenance Trust Fund.* Analysis of waterborne commerce shipments and vessel movement data is also needed to respond to legal questions to the HMF; to analyze alternative funding options; and to assess the economic and competitiveness impacts of other potential funding sources. The Corps is also required to collect data on foreign and domestic shippers subject to the fee. Therefore the Corps requires a portion of the administrative funding to continue its ongoing HMTF support efforts. Funds will also be used to modify computer programs to begin receiving CY10 waterborne import data from CBP's new Automated Commercial Environment. The General Accountability Office (GAO) issued its final report (GAO-08-321), which recommend that the CBP and the Corps improve their coordination and procedures in order to increase HMF collections by auditing domestic shippers failing to pay or under paying the HMF mandated by law. Preliminary estimates show that improved collections could increase annual receipts by approximately $500 million. The additional funding amount for FY 2011 will be used to comply with the GAO recommendation by improving the quality and completeness of the domestic shipper information collected by the Corps and improving Corps computer models and programs and data sharing between CBP and the Corps.

FUNDING PROFILE	Appropriation FY 2010	Budget for FY 2011
(a) Protection, Clearing, and Straightening of Channels	$ 48,000	$ 50,000
(b) Removal of Sunken Vessels	$ 475,000	$ 500,000
(c) Waterborne Commerce Statistics	$4,534,000	$4,771,000
(d) Harbor Maintenance Fee Data Collection	$ 784,000	$ 825,000
TOTAL	$5,841,000	$6,146,000

PROPOSED WCS/HMF ACTIVITIES IN FY 2011: Perform operations, maintenance and necessary enhancements of nation's waterborne commerce, vessel and shipper data and statistics programs. Continued modification of Corps automated systems to accept new real-time domestic electronic data. Increase project detail data requirement for budget submissions and economic justification. Expansion of water transportation data connection with landside movements. Modify programs to integrate CBP's new Automated Commercial Environment (ACE) import data into the current import/export data processing. Continue ongoing HMF data collection and analysis programs. Develop and implement improved data collection systems and data analysis models and program computer enhancements. Support of HMF collection to provide more complete/accurate domestic shipper information for Customs audit.

ACCOMPLISHMENTS IN FY 2010: Continued ongoing HMF data collection and analysis programs. Worked with CBP to plan and design improved systems to collect better data and improve computer programs and models in order to improve HMF collections from domestic shippers as recommended in GAO's report. Analyzed current CBP and Corps automated systems to design better methods for data and information exchange. Maintained FY 2010 data quality and completeness. Provided enhanced navigation project output data for budget formulation. Worked with other Federal agencies and industry to implement a new modern, comprehensive automated domestic waterborne data collection system.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

RecreationOneStop (R1S)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	65,000
Appropriation for FY 2010	62,000
Budget for FY 2011	65,000
Change of FY 2011 from FY 2010	3,000

AUTHORIZATION: These programs are conducted under the general authority of PL 78-534, the Flood Control Act of 1944 (58 Stat. 887).

JUSTIFICATION: The Recreation One-Stop initiative is to enhance customer satisfaction with recreational experiences on public lands. It improves access to recreation-related information generated by the Federal government, streamlines the systems used to manage that information, and increases the sharing of recreation-related information among government and non-government organizations. At the direction of Office of Management and Budget (OMB), Recreation.gov and Volunteer.gov was combined and is now under the umbrella of RecreationOneStop, a priority E-gov initiative on the President's Management Agenda.

PROPOSED ACTIVITIES FOR FY 2011:

RecreationOneStop (R1S) activities that will be accomplished in FY 2011 with these funds include the following activities:

1. Recreation.gov - $50,000: an interagency website providing public information about recreation opportunities on federal lands. A customer friendly recreation portal with information for planning visits to Federal recreation sites and making campground reservations. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

2. Volunteer.gov - $15,000: an interagency website coordinating volunteer activities among federal agencies. Provides a user-friendly, web based resource to citizens, offering a single point of access to information about volunteer opportunities nationwide. Volunteer.gov is a partner in the White House's USA FreedomCorps Network, and the site is also linked to the Recreation.gov website in which the Corps participates. Cost is an annual fee for service payment to DOI to manage, operate and maintain the website.

ACCOMPLISHMENTS IN PRIOR YEARS: Recreation.gov provides a customer friendly recreation portal with information for viewing and planning visits on over 4,000 Corps recreation sites and activities, reserve and make payment on line. Volunteer.gov provides a comprehensive clearinghouse of Corps volunteer opportunities. The public can enter geographic information about where they want to get involved and areas of interest to access volunteer opportunities offered by the Corps. Over 60,000 volunteers at Corps projects worked 1.5 million hours, providing $30.3 million value of service in fiscal year 2009.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Regional Sediment Management Program (RSM)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost of Continuing Program	$5,000,000
Allocation for FY 2010	$4,816,000
Budget for FY 2011	$2,000,000

AUTHORIZATION: Section 516 of WRDA 96 authorizes the development of long-term strategies for the management and control of sediments through studies and operational activities.

JUSTIFICATION: The RSM Program is a "systems-based approach" that solves sediment related problems by designing solutions that fit within the context of a regional strategy. The RSM Program objectives are to establish regional management strategies that link the sediment management actions at authorized Corps of Engineers (Corps) projects with one another, and to coordinate management activities with other Federal agencies, State, and local governments. RSM is the integrated management of littoral, estuarine, and riverine sediments to achieve balanced and sustainable solutions to sediment related needs. This approach provides opportunities to achieve greater effectiveness and efficiency and to realize significant cost savings relative to traditional project management practices. Cost savings may be realized from reduced re-handling of material, extended dredging cycles and combined equipment mobilization and demobilization for linked projects (e.g., dredging and shore protection). Costs may also be reduced by sharing information and reduced duplication of field data collection, or by reducing duplication in model and tool development.

The short-term goal of the RSM Program is to provide individual districts with the opportunity to identify initiatives that will facilitate implementation of regional sediment management strategies and produce sustainable project management cost savings. Initiatives that support regional strategies include: coordinate navigation channel maintenance with flood and coastal storm damage reduction projects; link sediment availability with sediment needs within the system based on suitable, quantity, quality, and timing, in the context of regional strategies for sediment management; and accommodate navigation channel maintenance material placement needs and concurrently strive to maintain natural sediment transport processes for ecosystem restoration and storm protection considerations. The long-term goal of the RSM Program is to promote technology transfer and lessons-learned in individual district regional sediment management strategies in order to maximize cost savings through sustainable project management practices.

PROPOSED ACTIVITIES FOR FY 2011:
Continue implementation of RSM through support to Districts and Divisions to include the following:

- The RSM National Program will continue to coordinate efforts to promote systems-based technologies and approaches to sediment management activities for the USACE Civil Works mission. Major RSM National Program activities will include: sponsoring the annual RSM Workshop and Program Review to promote technology transfer among RSM practitioners; participating in regional planning initiatives including Regional Dredging Teams, National Estuary Programs, the Gulf of Mexico Alliance, the West Coast Governor's Ocean Alliance, etc., and presenting RSM Program goals to national and international audiences at major conferences including the European SedNet Conference.

- Initiate the development of a sediment budget for the Long Island back-bay region within the Shinnecock Bay, Moriches Bay and Great South Bay, adjacent barrier islands and expand the geographic extent of the existing Atlantic Coast of New York CASCADE model to include areas west of the Fire Island Inlet. These efforts will be integrated with other ongoing initiatives to develop regional plans for the management of existing inlets, channels, beaches, borrow areas and related coastal and environmental resources.

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- The Mobile Bay Basin Watershed project will bring the lessons learned through application of the Regional Sediment Management (RSM) principles and practices in the coastal environment to a broader watershed perspective for sediment and related environmental management planning. By linking the watershed and coastal environments through application of RSM concepts, we will improve our understanding of the watershed processes and improve our ability to make informed, cooperative watershed management decisions. This effort capitalizes on the opportunities presented through collaboration and leveraging with ongoing efforts in the watershed, available tools, and established relationships.

- The Missouri River bed load study expands on the bedload transport work developed by the RSM program. The Integrated Section Surface Difference Over Time (ISSDOT) method has attempted to use bathymetric data to yield the bed load transport rate. The new, or modified, methodology uses a combination of analytic considerations and modern time-sequenced multibeam three-dimensional geometry of a dune field for computing the bed load transported in the dunes. It is proposed to use both flume data and field data to show the capability of the method to closely measure the bed-material load moving in sand dunes. The results will be applicable to bedload calculations for all fluvial systems.

- Expand the conceptual sediment budget developed for coastal Louisiana to an operational sediment budget to include: detailed analysis of volumetric change rates for several regions of the coastline, differentiation of fine versus coarse grain material in the littoral zone, evaluation of mud accretion on the Chenier coast and more extensive analysis of the dredging and placement records at MVN.

- Develop a 3-D sediment transport model for Ocean Beach and San Francisco Bight, California. USACE is currently designating a permanent dredged material placement site offshore of an erosional hotspot at Ocean Beach. The project site is dominated by tidal current and breaking wave-induced longshore current. The flow field is highly three-dimensional and requires a 3-D hydodynamic and sediment transport model capable of simulating coastal, estuarine, and tidal-zone processes. The model will guide future navigation O&M activities, disposal site selection and evaluation and the selection beneficial use sites for nearshore and onshore beach nourishment.

ACCOMPLISHMENTS IN FY 2010:

- Initiated regional sediment management investigations of the region from Diamond Head to Pearl Harbor (Oahu), Kekaha (Kauai) and Kihei/Kahului (Maui). Issues associated with stream sediments were investigated to identify best management practices to optimize use of the material. Benefits associated with the implementation of RSM efforts from Diamond Head to Pearl Harbor (D2P) are many fold. Quantification of sediment resources and pathways in the region inform engineering design guidance necessary to restore vital beach resources and conduct Federal maintenance dredging in the most cost effective way. Investigations of sediment management practices at stream mouths ensure that the associated beach quality material is placed back into the littoral system in an effective and efficient manner. The beneficial use of dredged material from the ports and harbors on Oahu has been investigated to maximize beach placement of the beach quality portion of the sediment.

- Developed a conceptual sediment budget for the lower Mississippi River System and coastal Louisiana. The conceptual sediment budget is a qualitative model providing a regional perspective for coastal, estuarine, and riverine processes, incorporating natural morphologic indicators of net (and gross) sediment transport. This conceptual budget represents the best understanding of sediment sources, sinks, and pathways within the Louisiana regional system, and identifies areas with overlapping and conflicting data and therefore can be applied to direct future analysis and data collection.

- Initiated development of a regional sediment budget for the coast of Long Island including an inventory of existing sediment borrow areas and development of a monitoring plan to manage offshore borrow areas. The purpose of the regional sediment budget is to make more effective uses of sediments from inlets and other sources, enhance environmental habitat, improve the collection and dissemination of data about the movement of sediment, facilitate cooperation among Federal and non-federal interests, and assure the most effective use of taypayer funds.

- A sediment transport model and a sediment budget were developed for Morehead City Harbor and the Bogue Banks in North Carolina. Coastal process modeling including ADCIRC and STWAVE were used to develop a detailed sediment budget along Shackelford Banks and Bogue Banks across three tidal inlets. Initiated development of an operational sediment budget utilizing CASCADE morphologic evolution modeling.

- Initiated development of a regional sediment budget and sediment yield assessment for the Niobrara River Basin, Nebraska and South Dakota. The sediment budget identifies the various sources of sediment and identifies contributions from various sources that are changing over time and evaluates the impacts of basin-wide sediment management practices on the main stem of the Niobrara River. The sediment budget will be used to implement sediment management actions to reduce impacts to Lewis and Clark Lake and will serve as a model for regional sediment management measures elsewhere in the Missouri River Basin.

- Performed initial drawdown test and conducted sediment transport modeling of the lower Green River and areas near Howard Hanson Dam. The goal of the project is to predict regional redistribution of sediments and environmental benefits and impacts due to reservoir drawdowns. The data collected during the drawdown will be used to assess the potential impacts of increased sediment releases on water supply, instream water quality, fisheries and riparian habitats.
- Completed the Southeast Atlantic Regional Sediment Source Study for Florida covering Miami-Dade, Broward, and Palm Beach Counties. Categorized potential offshore sand source reserves as Proven, Potential, and Unverified based upon the level of data availability and certainty/uncertainty of analysis. These reports compile existing information from SAJ's regional sediment budget documents and other literature in order to evaluate the sustainability of current shore protection practices given known borrow area capacities. These will be important tools to demonstrate to stakeholders the need for better management of sediment by employing RSM principles.

- The Norfolk District coordinated with Mathews County, VA and the Commonwealth of VA for the lower Chesapeake Bay, with a particular focus on the New Point Comfort area. Objectives are to: 1) construct a sediment budget for the area and, 2) to investigate utilizing dredge material from several local/adjacent federal navigation channels innovatively to address shoreline conditions along the western shorelines of the Chesapeake Bay. With federal navigation projects located throughout the area, there exists a need to provide and maintain adequate channel depths combined with the need to address shoreline erosion and storm damage reduction needs while recognizing the needs of the environment.

- A framework for a Regional Sediment Management Plan (RSMP) was prepared for the Delaware Estuary to summarize the need, alternatives and impacts associated with improving sediment management activities including dredging estuary. The RSMP illustrates the economic benefits and long-term needs and clearly show the consequences of failing to meet needs. The RSMP includes an implementation strategy using the Regional Dredging Team (RDT) as a Steering Committee, and an outreach plan to ensure that private industry and NGOs have a forum to have their needs voiced and heard by the RDT. The RDT will continually monitor the implementation of the plan to ensure open dialog among stakeholders and provide a forum to discuss innovative solutions as they arise.

- Initiated development of a Regional Sediment Management Plan for the South Coast of Rhode Island including coordination with stakeholders, data compilation and GIS population, and data gap analysis.

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- Performed wave analysis and sediment tracer study for offshore placement berm at the South Jetty, mouth of the Columbia River to evaluate the fate of material in potential beneficial use site for Columbia River dredge material.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Reliability Models Program For Major Rehabilitation and Asset Management

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$650,000
Appropriation for FY 2010	578,000
Budget for FY 2011	608,000
Change in FY 2011 from FY 2010	30,000

JUSTIFICATION: The purpose of this program is to respond to yearly needs of Districts and Divisions that are preparing Major Rehabilitation reports for the upcoming fiscal year. The objective of the program is to provide reliability models for project features or components that are being considered for Major Rehabilitation, or to provide procedures to consider the impact of various chemical, environmental or physical processes in a reliability analysis.

PROPOSED ACTIVITIES FOR FY 2011: Funds will be used to prepare reliability models and collect data for reliability analyses anticipated to be required by several Districts. Reliability models and/or data are anticipated to be needed for the following: Testing of a reliability model for seepage through embankment dams and levees will continue; Begin testing of a reliability model for floodwall stability: Continue evaluation of data collected on performance of dam gates, to determine performance modes and verify load cycles used in reliability analyses, and electrical/mechanical systems model for locks and dams. Begin collecting data to develop reliability models for I-Wall Phase III evaluation and Concrete Dam for seismic stability. Provide reliability analysis procedures for additional selected hydropower equipment. It is also anticipated that two rehabilitation workshops would be conducted. The makeup of these units is subject to the needs of the respective Districts and Divisions. Continue to provide support and consultation for development of reliability model for Asset Management for Navigation and Flood/Coastal business line projects.

ACCOMPLISHMENTS IN PRIOR YEARS: Reliability models and other analytical tools have been provided in support of Major Rehabilitation reports on numerous navigation and hydropower projects. In addition, 20 rehabilitation workshops have been conducted in the last 12 years assisted to the Districts as they prepare their reports. These workshops offer guidance in conducting reliability and risk analyses, and provide the opportunity for interdisciplinary teams from the Districts to discuss their particular project with HQUSACE and other Districts personnel. In FY05 the Concrete Deterioration model for Lock Walls and the economic consequences will be finalized through as series of expert elicitation workshop which began in late FY04. These models will be applied to a district lock wall to aid in the Major Rehab Program justification. Two rehabilitation workshops were conducted. Expert Elicitation was conducted for the mechanical and electrical system for navigation locks. Conduct workshop for Jacksonville district. Continue to provide consultation and review in development of reliability model for major maintenance (as part of asset management). Computer programs – design of T-wall and Sheet piling –were modify to run reliability models for leave/wall system (Kansas city and New Orleans Districts projects).

Appropriation Title: Operation and Maintenance, General -- Fiscal Year 2011

Shoreline Permit Use Study

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$250,000
Appropriation for FY 2010	$238,000
Budget for FY 2011	$250,000
Change in FY 2011 from FY 2010	$12,000

AUTHORIZATION: This program is conducted under the authority of Engineer Regulation 1130-2-406 Shoreline Management at Civil Works Projects.

JUSTIFICATION: There currently exist approximately 68,000 docks under the Corps shoreline use permit program. The current fee structure to recover the administrative costs has not changed since 1974, while the cost of administrating the program has increased significantly over the past 35 years. The current cost for permitting a floating facility is $35 for 5 years or $ 7 per year. These fees are returned to the treasury, as required by law, and not to the administrative unit of the Corps. Preliminary studies completed in the 1987 suggest administrative cost of a 5 year permit to be $490 for a floating facility and $ 245 for vegetation modification. In absence of a new evaluation, applying the consumer price index to the 1987 results would result in administrative cost of $800 for a floating facility and $ 400 for vegetation modification. The holders of these permits also experience significant gain in property value that in many cases exceed tens of thousands of dollars. No existing study has captured the value of docks to insure the government is fairly compensated for this value for private exclusive use. Significant resources could be obtained through return of appropriate fees to cover Corps administrative expenses while additional value may be returned to the treasury to off-set other Corps programs such as recreation fee retention.

PROPOSED ACTIVITIES FOR FY 2011:
The FY 2011 funding would be utilized to conduct follow-up study(s) needed and determine market valuation algorithm/process for implementing regional fee program(s) across the U.S. There will be regional differences based on real estate values and demographic projections; fee structure will include administrative expenses, assessment of added real value of the docks and process for return of revenue to Corps and the Treasury.

ACCOMPLISHMENTS IN PRIOR YEARS:
In FY10 an initial study was done to review existing fee program(s) and capture the value of existing docks for private exclusive use.

Appropriation Title: Operation and Maintenance – Fiscal Year 2011

Water Operations Technical Support (WOTS)

SUMMARIZED FINANCIAL DATA:

Estimated Annual Cost for Continuing Program	$1,500,000
Allocation for FY 2010	$621,000
Budget for FY 2011	$653,000
Increase of FY 2011 from FY 2010	$32,000

AUTHORIZATION: These efforts are necessary to provide support for the restoration and management of Federal water resources.

JUSTIFICATION: Maintaining the high quality environmental and water quality conditions at 562 Corps reservoirs (5,500,000 surface acres), 237 navigation locks, 926 harbors, 75 hydropower projects, and 25,000 miles of inland and coastal waterways requires compliance with numerous statutes and state standards. Providing the technology and knowledge base necessary to broadly address environmental requirements in accordance with laws and regulations can best be accomplished through a comprehensive centralized program that will maximize cost effectiveness, and ensure broad dissemination and implementation of technology and information.

PROPOSED ACTIVITIES FOR FY 2011: The WOTS Program is expanding as environmental conditions at Corps project sites continue to deteriorate. The program will continue to provide effective environmental and water quality management technologies to address a wide range of issues at Corps reservoir and waterway projects, and in river systems nationwide. The program will provide technology to address: problems caused by aquatic invasive species; water quality impacts of landuse, sediment and nutrient loadings, erosion, and reservoir sedimentation; tailwater fisheries concerns at pump-back hydropower projects; and project operations related to environmental and water quality issues. WOTS will provide technical support to the Corps' mission related project responsibilities, with special emphasis on the transfer of technology. The program will ensure that the technologies developed by the Corps and other Federal agencies are current and readily available to all Corps field offices. The effective use of technologies will be secured through direct technical assistance, specialty workshops, information bulletins, technical notes, executive notes, technical reports, miscellaneous papers, instruction manuals, videos, meetings, seminars, briefings, congressional testimony, and the Internet.

ACCOMPLISHMENTS IN FY 2010: Since its inception in FY 1985, WOTS has provided environmental and water quality technological solutions to over 1,600 problems identified at projects from every Corps District. The WOTS program annually conducts specialty workshops, training personnel on the latest environmental and water quality management techniques; and publishes and distributes numerous copies of manuals, bulletins, notes, and reports. In FY 2010, the WOTS program successfully responded to over 40 direct technical assistance requests from 20 Corps Districts, conducted 4 training workshops on environmental and water quality management techniques, conducted 2 technology demonstration efforts to verify management strategies and techniques, and prepared several technical publications for distribution to the field. A continual endeavor of the WOTS program is coordination with water quality and environmental elements of other Federal agencies such as the Environmental Protection Agency, U.S. Department of Agriculture, Bureau of Reclamation, Fish and Wildlife Service, U.S. Geological Survey, Tennessee Valley Authority, and the Bonneville Power Administration. These efforts have involved problems related to the introduction and spread of aquatic invasive species, watershed management activities, environmental impacts of hydropower facilities, and impacts of water releases in tailwater areas on fisheries.